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THE UNIVERSITY OF ALBERTA

CONSUMER SATISFACTION WITH THE COMMERCIAL SERVICEABILITY OF SELECTED TEXTILE PRODUCTS

by

© VALERIE T. HIGA

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF SCIENCE

in

CLOTHING AND TEXTILES

FACULTY OF HOME ECONOMICS

EDMONTON, ALBERTA

FALL, 1979

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, a thesis entitled Consumer Satisfaction with the Commercial Serviceability of Selected Textile Products submitted by Valerie Takeko Higa in partial fulfilment of the requirements for the degree of Master of Science.

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Abstract

Consumer Satisfaction with the Commercial Serviceability of Selected Textile Products

by

Valerie T. Higa, Master of Science

University of Alberta, 1979

Professor: E. M. Crown

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The purpose of this exploratory study was to explain consumer satisfaction with the commercial serviceability of a selected group of textile products. The textile products included various home furnishings and specialty clothing items (specifically, suede, leather, fur, and down-filled garments).

The conceptual framework used in this study was based on Engel, Blackwell, and Kollat's (1978) theory of satisfaction and Day and Landon's (1976) post-dissatisfaction actions framework. The following four aspects of a particular experience were examined: (a) the performance of a textile product during commercial servicing; (b) the professional cleaner's performance while servicing the product; (c) the results of the report issued by an independent testing laboratory; and (d) the results of the post-dissatisfaction actions taken by consumers.

The sample included 45 consumers selected from the files of the Textile Analysis Service at the University of Alberta. These consumers were men and women from Alberta, Saskatchewan, and British Columbia.

A questionnaire was developed and mailed to the consumers. The results indicated that the consumer had high expectations regarding both the performance of the textile product during commercial servicing and the professional cleaner's performance. When these expectations were not confirmed and a damaged product was returned from the

cleaner, the majority of the consumers believed that the cleaner was responsible. The Textile Analysis Service, however, indicated that responsibility was designated most often to the manufacturer, followed by the cleaner and natural causes. Post-dissatisfaction actions were initiated by 31 consumers and satisfaction was indicated most often with the retailer's resolution of the problem. While the majority of the consumers indicated intentions to repurchase similar textile products, to continue using the services of the independent testing laboratory, and to follow similar post-dissatisfaction actions, they did not intend to patronize the same cleaner.

The data were statistically analyzed with the following nonparametric tests: the Mann-Whitney U Test, Sign Test, Chi-square, and Kruskal-Wallis One-Way Analysis of Variance. The results provided some support for the Engel et al. (1978) theory of satisfaction; significant differences in satisfaction were found with the laboratory report ($p=0.001$) and with post-dissatisfaction actions ($p=0.000$). Also, Engel et al.'s (1978) hypothesis that satisfactory evaluations will increase the probability of repeating similar acts was supported regarding the satisfied consumer's intentions to repurchase similar textile products ($p=0.004$) and to continue using the services of the Textile Analysis Service ($p=0.000$). Day and Landon's (1976) framework of post-dissatisfaction actions was generally supported although consumers neglected to mention the private actions taken.

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CHAPTER I

INTRODUCTION

This thesis examines the behavior of a group of consumers who were initially dissatisfied with the performance of the textile product during commercial servicing and/or the performance of the professional cleaner while servicing the product, and who then had their damaged products analyzed by an independent testing laboratory. The additional types of post-dissatisfaction actions initiated by consumers after receiving the laboratory report are also examined in this study.

Consumers are becoming increasingly dissatisfied with deficiencies in products and are demanding better products which perform flawlessly. Anderson and Jolson (1973) attribute this dissatisfaction to the increases in consumer affluence, sophistication, and faith in the achievements and possibilities of technology.

Labarthe (1954), Hanworthe (1969), Conklyn (1971) and Sproles (1977) have suggested that consumers do not anticipate problems with the performance of textile products due to technological developments. According to Steiniger and Dardis (1971), the textile industry has introduced new fibers, fabrics and finishes in products which are marketed prematurely. The product is not extensively tested before it is sold and consumers frequently discover that it fails to live up to the claims of the manufacturer. In addition, the consumer lacks information on the care and end-use performance of the new product and cannot predict how satisfactory the product will be. This resultant gap between consumer beliefs and product performance is likely to create consumer dissatisfaction with the instrumental (physical) dimension of textile product performance (Swan & Combs, 1976).

One aspect of the instrumental dimension of a textile product is the serviceability of the product and its influence on consumer satisfaction. The International Fair Claims Guide for Consumer Textile Products (International Fabricare Institute, 1973, p. 4) differentiates between two types of serviceability. Implied serviceability is the minimum quality of performance implied in any textile product by reason of its nature, purpose, material content and customary use, while specified serviceability is the quality of performance which is normally not implied in or expected of a product by reason of its nature, material content, or customary use.

The specified service quality may be a performance limitation or an added performance capability.

A problem with the serviceability of textile products is that the implied qualities or characteristics cannot be predetermined at the time of purchase (Johnson, 1966, p. 34). The National Retail Merchants Association, however, states that "In the sale of merchandise there is an implied warranty that such goods will afford reasonable service in use, and unless otherwise specified may be cleansed and refreshed by customary methods" (International Fabricare Institute, 1973, p. 4).

When a product is found to be damaged after being cleaned by the consumer, the consumer may attribute the blame to a defect in the product. When a product is found to be damaged after being commercially serviced, the consumer may blame the professional cleaner, claiming that the product was in perfect condition when it was sent in. When problems arise in commercial servicing, the consumer has difficulty in deciding which party is responsible--the manufacturer or the professional cleaner. The consumer may be dissatisfied with either party, but the consumer may be even more dissatisfied when both parties deny responsibility for the damaged product.

In an attempt to reconcile differences of opinion among the consumer, cleaner, and/or manufacturer, an independent testing laboratory may be approached to analyze and objectively determine the responsibility for the damaged textile product. An independent testing laboratory, unlike a testing laboratory affiliated with a manufacturing or servicing institution, provides all parties with assurance that an unbiased decision will be made.

Research studies have investigated the post-dissatisfaction actions of consumers when dissatisfied with the performance of their textile products (Nichols & Dardis, 1973; Steiniger & Dardis, 1971). There is no known study, however, which follows up the post-dissatisfaction actions after obtaining information from a testing laboratory. The consumer's satisfaction with the report from the laboratory and with the results of post-dissatisfaction actions could influence that consumer's satisfaction with the commercial serviceability of textile products. Also, a knowledge of the outcomes regarding the report from the laboratory and other post-dissatisfaction

actions could contribute to the consumer satisfaction theory discussed in Chapter II.

Statement of the Problem

The purpose of this exploratory study is to examine consumer satisfaction with the commercial serviceability of a selected group of textile products. Satisfaction (the confirmation of beliefs) with the following four aspects of a particular experience will be studied: (a) the performance of the textile product during commercial servicing; (b) the performance of the professional cleaner while servicing the particular textile product; (c) the independent testing laboratory report in determining the responsibility for the damaged product; and (d) the results of other post-dissatisfaction actions taken by the consumers.

Justification

A study of consumer satisfaction with the commercial serviceability of textile products has been selected because of the limited research literature on the topic. This study will concentrate on home furnishing products (specifically upholstery, bedspreads, carpets and rugs, and curtains and draperies) and suede, leather, fur, and down-filled garments. The serviceability aspect of these textile products is worthy of further research because of their similar characteristics which have a tendency to create consumer dissatisfaction: (a) Nichols and Dardis (1973) found that appearance (79%), rather than care or performance attributes, was mentioned most frequently by respondents as influencing purchases of home furnishings; (b) the products are often categorized as major expenditure items which should have a long life expectancy; and (c) they are often recommended by the manufacturer to be commercially cleaned. Thus, the consumer may expect that the professional cleaner, being an expert in the field, will service the product safely.

When beliefs regarding the performance of the textile product and/or professional cleaner are not confirmed, dissatisfaction may result. While it is important to identify the consumer's problems with textile products, it may be just as important, or even more important to determine the dissatisfied consumer's further actions in

an attempt to achieve satisfaction. The satisfaction received from an independent testing laboratory's report and from post-dissatisfaction actions may be significant in explaining final consumer satisfaction with a former "problem" textile product.

Objectives

The objectives of this exploratory study included:

Objective 1: To determine if satisfaction results from the confirmation of beliefs regarding the outcomes of each aspect of the particular experience studied.

Objective 2: To examine the further actions taken by consumers after using the services of an independent testing laboratory.

Objective 3: To determine if final satisfactory reevaluations regarding each aspect of the particular experience studied would result in favorable intentions to repeat each respective aspect.

Objective 4: To determine the feasibility and usefulness of studying consumer satisfaction with the commercial serviceability of selected textile products with a sample of consumers who had used the services of an independent testing laboratory.

Hypotheses

Null Hypothesis 1:

1(a) There will be no significant difference in satisfaction between those consumers whose beliefs regarding the performance of the textile product during commercial servicing were confirmed and those consumers whose beliefs were not confirmed.

1(b) There will be no significant difference in satisfaction between those consumers whose beliefs regarding the performance of the professional cleaner when servicing the textile product were confirmed and those consumers whose beliefs were not confirmed.

1(c) There will be no significant difference in satisfaction between those consumers whose beliefs regarding the independent testing labora-

tory report were confirmed and those consumers whose beliefs were not confirmed.

1(d) There will be no significant difference in satisfaction between those consumers whose beliefs regarding the results of post-dissatisfaction action(s) were confirmed and those consumers whose beliefs were not confirmed.

Null Hypothesis 2:

There will be no significant difference between a consumer's satisfaction with the performance of the textile product during commercial servicing and the consumer's satisfaction with the professional cleaner's performance while servicing the product.

Null Hypothesis 3:

There will be no significant difference in the consumer's decision to initiate further post-dissatisfaction action(s) between those consumers whose beliefs regarding responsibility for the damaged textile product were confirmed by the laboratory report and those consumers whose beliefs were not confirmed.

Null Hypothesis 4:

There will be no significant difference in satisfaction among those consumers who took different types of post-dissatisfaction actions.

(a) among all types of actions

(b) between specific types of private actions, namely, ceasing to patronize the servicer and/or warning family and friends about the servicer

(c) among specific types of public actions, namely, seeking redress from the business firms, taking legal action, and/or registering a complaint

Null Hypothesis 5:

5(a) There will be no significant difference in satisfaction among consumers who sought redress directly from the different types of business firms, namely, the manufacturer, retailer, and/or cleaner.

5(b) There will be no significant difference in satisfaction among consumers who took legal action to obtain redress from different business firms, namely, the manufacturer, retailer, and/or cleaner.

5(c) There will be no significant difference in satisfaction among consumers who registered a complaint with different types of consumer-oriented agencies, namely, a business , government, and/or private consumer agency.

Null Hypothesis 6:

6(a) There will be no significant difference in final satisfaction with the commercial serviceability of the textile product between consumers who do or do not intend to repurchase a similar textile product.

6(b) There will be no significant difference in final satisfaction with the professional cleaner's performance between consumers who do or do not intend to patronize the same cleaner again.

6(c) There will be no significant difference in final satisfaction with the independent testing laboratory report between consumers who do or do not intend to continue using its services.

6(d) There will be no significant difference in final satisfaction with the results of post-dissatisfaction action(s) taken between consumers who do or do not intend to initiate similar post-dissatisfaction actions.

Definition of Terms

1. Belief--the individual's perception that an object has a specific attribute. Operational definition of a belief---the individual's expectation regarding the outcomes of the following actions: (a) the commercial serviceability of a selected textile product; (b) the performance of the professional cleaner; (c) the results from an independent testing laboratory report; and (d) the results of post-dissatisfaction action(s).
2. Confirmation of a belief--support for an expectation regarding the outcome of an action.

3. Satisfaction--an individual's favorable evaluation regarding the results of an action.

   Operational definition of satisfaction--the following ordinal values represented the various levels of satisfaction: (1) Definitely Not Satisfied, (2) Not Satisfied, (3) Unsure, (4) Satisfied, (5) Definitely Satisfied.
4. Outcome--a final consequence or result.
5. Textile product performance--the manner in which a product performs during use, storage, laundering, or drycleaning.
6. Commercial servicing--the acts of cleaning, refreshing, and renovating as performed by the professional cleaner.
7. Commercial serviceability--the performance of a textile product during professional cleaning, refreshing, and renovating.
8. Post-dissatisfaction actions--the initiation of procedures to rectify an unsatisfactory situation.
9. Redress action--the seeking of a remedy to compensate for a loss.

Scope of the Study

The sample of consumers was selected from the September 1977-March 1979 files of an independent testing laboratory, the Textile Analysis Service in the Faculty of Home Economics at the University of Alberta. The textile products were limited to home furnishings (specifically upholstery, bedspreads, carpets & rugs, and curtains & draperies) and suede, leather, fur, and down-filled garments. All textile products were professionally cleaned prior to the observed damage of the product.

Anticipated Limitations

Since one testing laboratory was used to determine the responsibility for the damage of the textile product, generalizations cannot be made beyond the cases taken from the Textile Analysis Service. In addition, the sample comprised a special group of consumers who decided to take action; thus these consumers may not be representative of the general population.

The selection of cases partially depended on the availability of the name, address,

and telephone numbers of the consumers through the Textile Analysis Service, professional cleaners, retailers, and government agencies.

The instrument used to measure the consumer's beliefs may not be valid since the consumer was questioned after the events had occurred. The reported beliefs were affected by the consumer's perception of the actual performances of the product and the cleaner and the outcomes of the independent testing laboratory and post-dissatisfaction actions.

Assumptions

It was assumed that all consumers selected over a 2-year period (September 1977 to March 1979) would have adequate memory recall regarding their textile products which were noticeably damaged after being commercially serviced.

It was also assumed that although the consumer may have returned the damaged textile product to the manufacturer, retailer, and /or cleaner for immediate redress, the consumer agreed to have the product analyzed by a laboratory before any corrective action would begin.

CHAPTER II

REVIEW OF LITERATURE

The selected literature is organized into two major categories: social science literature and applied literature. The social science literature includes a review of the Engel, Blackwell, and Kollat (1978) Consumer Behavior Model, the socio-psychological concepts of beliefs and attitudes and consumer satisfaction theory. Applied literature includes a review of the studies of consumer satisfaction with textile product performance, commercial servicing, and post-dissatisfaction actions and a review of the studies of testing laboratories.

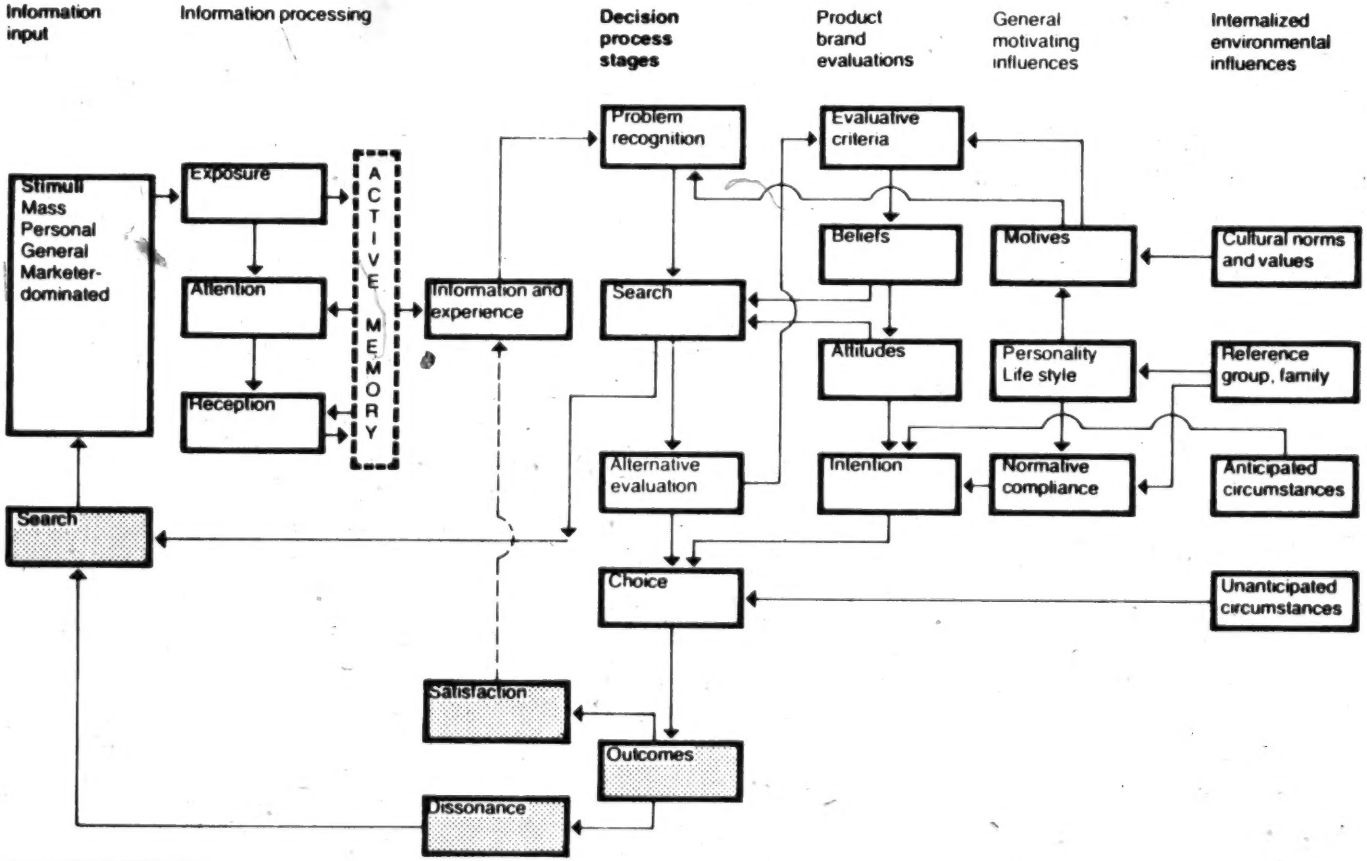
Social Science Literature

The Engel, Blackwell, & Kollat (1978) Consumer Behavior Model

The earlier consumer behavior frameworks of Nicosia (1966), Howard and Sheth (1969), and Engel, Kollat, and Blackwell (1968, 1973) were among those which have notably influenced the development of the Engel, Blackwell, and Kollat (1978) consumer behavior model. This model proposed a framework for understanding the relationship between beliefs and attitudes and future purchase behavior (based largely on Fishbein's (1967) expectancy-value model) and provided a framework for the theoretical aspect of this study of consumer satisfaction. Discussions on the socio-psychological contributions of Fishbein (1963, 1967) and Rosenberg (1956) and on the theory of consumer satisfaction will follow the brief overview of the Engel et al. (1978) model.

Figure 1 illustrates the Engel, Blackwell, and Kollat (1978) consumer behavior model which also highlights the outcomes of choice--the focus of the present study. The first four stages of the decision process--problem recognition, search, alternative evaluation, and choice--are influenced by the following components: product brand evaluations, general motivating influences, internalized environmental influences and information input and processing.

Figure 1. The Engel, Blackwell, and Kollat (1978) Consumer Behavior Model Showing the Outcomes of Choice.[1]



[1]From CONSUMER BEHAVIOR, Third Edition, by J. F. Engel, R. D. Blackwell, and D. T. Kollat, Copyright (c) 1978 by the Dryden Press, a division of Holt, Rinehart and Winston. Reproduced by permission of Holt, Rinehart and Winston.

The last stage of the decision process produces two types of outcomes: (a) satisfaction/dissatisfaction and (b) post-decision dissonance. Satisfaction is defined by Engel et al. (1978, p. 493) in terms of the confirmation of beliefs with respect to the outcome of an act while dissatisfaction is defined in terms of the disconfirmation of beliefs with respect to the outcome of an act. Post-decision dissonance is defined by the same authors (1978, p. 479) as a doubt that a correct decision was made. Festinger's (1962) theory of cognitive dissonance states that when two beliefs do not agree with each other, a psychological discomfort (dissonance) is produced. While the individual attempts to reduce dissonance, the individual will also avoid information which may increase the dissonance.

Engel et al. (1978) have elaborated on two methods for reducing dissonance: (a) reevaluation of alternatives and (b) post-decision information search. When reevaluating alternatives, the consumer can increase the perceived attractiveness of the chosen alternatives and/or decrease the desireability of the unchosen alternatives so that dissonance is reduced. The second suggested method for reducing dissonance is to initiate a post-decision information search. Most consumers are probably more willing to search for additional favorable information to support their choices than to admit that a mistake was made in their final selection. Consumers may seek advertisements which emphasize the selling points of the product and/or the superiority of the product in comparison to the other brands on the market as well as the manufacturer's informational tags and/or brochures which accompanies each product.

When comparing these two types of outcomes, post-decision dissonance is considered by Engel et al. (1978, pp. 497-500) to be of lesser importance than the study of dissatisfaction. These authors stated that while dissonance studies appeal to those researchers interested in the theoretical aspect of consumer behavior, researchers with an applied interest tend to believe that the consumer's post-decision reevaluation of alternatives has no significant implication for market planners since dissonance takes place as a result of what has happened before purchase. In addition, researchers have questioned the results of the studies on post-decision information search as a means of reducing dissonance because of methodological limitations. Dissatisfaction, however, is considered by Engel et al. (1978) to be a major incentive for the rise of the consumerism movement and has many implications for the marketplace.

The Socio-Psychological Concepts of Beliefs and Attitudes

Belief and attitude formation. Fishbein and Ajzen (1975) acknowledged the limited number of studies regarding belief formation and emphasized the need for additional research in order to understand the relationship between attitudes, intention, and behavior. The authors identified three types of belief formation: (a) direct experiences with a given object produced descriptive beliefs; (b) the individual's judgements based on prior descriptive beliefs and/or past experiences produced inferential beliefs; and (c) the acceptance of information provided by an outside source produced informational beliefs.

For a long time social psychologists have assumed that a change in attitudes would result in a change in behavior. During the late 1960's, this assumption was challenged due to the recognition of three types of methodological problems as noted by Engel et al. (1978, p. 387): (a) attitude has been defined and conceptualized in many different ways; (b) attitude has been measured by many methods which do not have high validity; and (c) attitude, as a single variable, has been expected to fully explain a complex behavioral act.

Social psychologists Milton Rosenberg and Martin Fishbein were largely responsible for introducing significant conceptual and methodological improvements found in a limited number of recent attitudinal research studies. Rosenberg's (1956) and Fishbein's (1963) expectancy-value models discussed the formation of beliefs and attitudes toward an object. Rosenberg (1956) hypothesized that attitudes toward an object could be predicted on two variables: (a) value importance (i.e., evaluative criteria for producing satisfaction) and (b) perceived instrumentality (i.e., the individual's estimation of the degree to which the value in question could or could not be achieved).

In an attempt to distinguish between "beliefs" and "attitudes", Fishbein (1963) hypothesized that the individual's attitudes toward an object were independently related to the individual's beliefs about a given object. Osgood, Suci, and Tannenbaum's (1957) definition of attitude "the evaluative dimension of an object" and Fishbein and Raven's (1962) definition of beliefs "the probability dimension of an object" were used in Fishbein's (1963) study.

The results of Fishbein's (1963) study on attitudes toward Negroes strongly supported the hypothesis that the individual's attitude toward an object was a function of

(a) the beliefs about that object (i.e., the probability that an object does or does not have a particular attribute) and (b) the evaluation of those beliefs (i.e., the positive or negative attitude toward the presence or absence of the particular attribute).

Changing beliefs and attitudes. Two basic strategies to produce change in beliefs include: (a) active participation and (b) persuasive communication (Fishbein & Ajzen, 1975, pp. 388-389). Active participation allows the participant to experience a direct observation that a particular object has a particular attribute. This procedure, however, cannot guarantee that the participant will perceive the desired object-attribute association. With persuasive communication, the consumer is informed by an outside source that the object has the particular attribute. This procedure, however, cannot guarantee that the consumer will believe the information source.

Fishbein and Ajzen (1975, pp. 389-390) suggested that in an attempt to change a particular belief, informational items must be provided and directed toward the primary determinants of that particular belief. After the informational items have been perceived and accepted by the subject, the resulting changes in the subject's informational beliefs may ultimately initiate changes in the particular belief under consideration.

Changes in attitudes, according to Fishbein and Ajzen (1975, pp. 396-400) can be accomplished by (a) changing the subject's beliefs about an object and/or (b) changing the subject's evaluation of the attributes of the object.

Role in consumer behavior models. Although Rosenberg's (1956) and Fishbein's (1963) models were limited to predicting attitudes toward an object, Fishbein (1967) later modified his model so that it could predict intention--an approximate predictor of behavior. The modifications included: (a) a substitution of "attitude toward an act" in place of the limited concept "attitude toward an object"; and (b) the addition of two new variables--normative beliefs and the motivation to comply with those beliefs. The works of these authors were eventually incorporated into the consumer behavior model developed by Engel et al. (1978).

Consumer Satisfaction Theory

The theory of consumer satisfaction as developed in the Engel et al. (1978) model is defined in terms of the confirmation of beliefs with respect to the outcome of an act:

> Beliefs function, in effect, as a type of hypothesis regarding the consequences of an act, and the input of information after purchase either serves to confirm or to reject it. If confirmed, beliefs and attitudes will be strengthened. If disconfirmed, the most probable initial outcome is an unfavorable product evaluation. (Engel et al., 1978, p. 493)

Studies have found that relationships exist between (a) a confirmed belief and a positive postpurchase evaluation and (b) a belief which has not been confirmed and a negative postpurchase evaluation. Carlsmith and Aronson (1963) found that subjects magnified the differences between beliefs and reality in an experimentally manipulated study on the taste of bitter and sweet solutions. The product was evaluated negatively when the product failed to confirm the subject's beliefs, regardless whether it exceeded or fell short of the belief. Cohen and Goldberg (1970) also found that subjects reevaluated coffee positively when their beliefs were confirmed and reevaluated the coffee negatively when their beliefs were not confirmed.

The relationship between "poorer than anticipated" results and unfavorable product reevaluation was established by Cardozo (1965) and Anderson (1973). In one study conducted by Olshavsky and Miller (1972), however, opposite results occurred. Although the product performances of reel-to-reel tape recorders were poorer than anticipated, subjects gave favorable evaluations. Olshavsky and Miller suggested that one possible explanation for these results was the complex nature of the product; the evaluation process required simultaneous judgements on a number of vague dimensions. Another suggested explanation was a methodological flaw in Cardozo's (1965) study in which the evaluations on the two scales used were not comparable.

The majority of the previously mentioned studies have shown that when beliefs are confirmed, favorable postpurchase evaluations are produced and when beliefs are not confirmed, unfavorable postpurchase evaluations are produced. A logical assumption would be that favorable postpurchase evaluations would yield consumer satisfaction and unfavorable postpurchase evaluations would yield consumer dissatisfaction. Swan and Combs (1976) empirically tested one aspect of the relationship

among beliefs, performance, and satisfaction with clothing. The results supported the hypothesis that consumer satisfaction is associated with the confirmation of beliefs and consumer dissatisfaction is associated with those beliefs which have not been confirmed.

Engel et al. (1978, p. 493) also suggested that satisfaction and dissatisfaction become a part of information and experience, and can influence the consumer's beliefs, attitudes and further actions. An evaluation of satisfaction can strengthen beliefs and increase the probability of repeating a similar act.

Since the Engel et al. (1978) model has not elaborated on specific types of post-dissatisfaction actions, the component of corrective actions in Day and Landon's (1976) consumer satisfaction model will be used. According to Day and Landon, the dissatisfied consumer has the option to initiate action or decide not to take action (preferring to forget the experience). If the consumer initiates action, the consumer can engage in private or public actions. Private action includes: (a) deciding not to purchase the same product and/or patronize the same servicer, deciding to boycott the seller; and (b) warning family and friends about the product, seller, and/or servicer. Public action includes: (a) seeking redress directly from the business firms (i.e., manufacturer, retailer, or servicer); (b) taking legal action to obtain redress from the business firms (i.e., manufacturer, retailer, or servicer); and (c) registering a complaint with a business, government , or private consumer organization. Rather than engaging in only one type of post-dissatisfaction action, the consumer may also engage in a number of different types of actions.

Applied Literature

Consumer Satisfaction with Textile Product Performance

Ryan (1966) suggested that before a consumer is satisfied with clothing, the consumer must rate the product high on the characteristic(s) most important to her, while meeting certain minimum expectations on other characteristics.

Swan and Combs (1976) elaborated on this concept and also examined which dimension(s) of product performance were related to satisfaction. The dimensions of instrumental and expressive product characteristics were identified and examined. Instrumen-

tal characteristics pertained to the physical performance of a product while expressive characteristics pertained to the psychological aspects of performance. Responses from 60 undergraduate students indicated that satisfaction with clothing most often occurred when expressive beliefs were supported while dissatisfaction was likely to occur when instrumental characteristics failed to support the students' beliefs. These results supported Herzberg, Mausner, and Snyderman's (1959) findings that the factors involved in producing satisfaction were separate and distinct from the factors involved in producing dissatisfaction.

Swan and Combs (1976) also stated that both instrumental and expressive beliefs must be confirmed in order to achieve overall satisfaction with the performance of a product. The results indicated that the instrumental characteristics of a product should be satisfied before the expressive characteristics of a product.

A recent study in Columbus, Ohio has shown that consumer satisfaction can be predicted and profiled when examining an instrumental characteristic of a product (Wall, Dickey, & Talarzyk, 1978). The product performance characteristic, labelled as the Clothing Performance Problem Prone factor score, was found to be the most useful predictor of consumer satisfaction when studying women's satisfaction with the wear and care performance of their clothing. Consumers with the fewer clothing performance problems were found to be more satisfied with their clothing than the consumers with more clothing performance problems.

There have been a few consumer satisfaction studies with clothing and home furnishings in which general satisfaction with the physical performance of these products has been established. In each study, however, indications of dissatisfaction were also reported by the consumers. A Syracuse study conducted by Steiniger and Dardis (1971) found that respondents were generally satisfied with the performance of their home furnishing and clothing purchases. More than 70% of the subjects rated these purchases as good or very good; only 10% of the subjects rated these purchases as poor or very poor. But consumers also listed many problem areas relating to comfort, appearance and ease of care, wear, and durability. The majority of faults occurred during servicing for clothing and during use for home furnishings.

Another Syracuse study focusing on home furnishings found that 66% of the respondents who had recently purchased home furnishings were satisfied or very satis-

fied with the performance of the product, 25% were dissatisfied or very dissatisfied, and 9% were indifferent (Nichols & Dardis, 1973). Again consumer complaints with appearance, ease of care, wear, and durability were mentioned. Wear and cleaning problems were mentioned most often regarding upholstered products and rugs.

A recent national comprehensive study of consumer dissatisfaction with market performance in the United States was conducted by Best and Andreasen (1976). They found that 83% of the respondents were partially satisfied or completely satisfied with their clothing purchases while 14% of the respondents expressed some degree of dissatisfaction. Problems with product performance were mentioned by 28% of the respondents.

Garrison (1965) found that most of the women living in a selected low-income housing project in Knoxville, Tennessee were satisfied with their clothing purchases even though they reported poor performance for many garments. Garrison suggested that they accepted poor performance characteristics in their clothing and that they were more concerned with outward appearance than with the wear and care performance in their clothing.

Contrary to the previous studies, a general feeling of dissatisfaction with clothing purchases was obtained in a study in Indiana by Sproles (1977). Approximately two-thirds of the 989 adult women respondents expressed general dissatisfaction while only one-third expressed satisfaction with their clothing. Dissatisfaction with product performance was experienced by a large proportion of the women. The most frequently mentioned problems included: (a) poor construction of the garments; and (b) a general overall low quality of the clothing. One possible explanation for the general feeling of dissatisfaction with clothing is that the consumer's beliefs in perfect product characteristics were not supported.

Steiniger and Dardis (1971) reported that the majority of faults occurred during servicing of clothing while Nichols and Dardis (1973) reported that many cleaning problems occurred with upholstered products. There may be difficulties with regular home care procedures for the textile products selected in this study. Draperies are generally bulky and inconvenient to clean by home laundry methods. Also, the fiber content of draperies often necessitates drycleaning. Although "do-it-yourself" home care methods for cleaning carpets, rugs, and upholstery are available to the consumer,

the consumer may have more confidence in the professional cleaner to safely clean the major investment items. In addition, manufacturers often recommend professional cleaning for best care results for their textile products. And with most suede, leather, and fur garments, the consumer has no alternative way of cleaning these items other than through the professional cleaner.

Consumer Satisfaction with Commercial Servicing

The number of studies examining consumer satisfaction with commercial servicing is very limited. The Ohio Drycleaners Association (1967) conducted a study in metropolitan Columbus and found that 83% of the 180 respondents were satisfied with the items drycleaned in the past six months. Of the remaining 17% who indicated dissatisfaction, the greatest problem was that spots remained after cleaning.

Boyle (1950) conducted a study in Williamsport, Pennsylvania and found that 59% of the respondents were satisfied with the professional drycleaning services while 39% of the respondents were dissatisfied. Areas of dissatisfaction included spot removal and drycleaning odors. The areas of repairs, shrinkage, and stretching indicated a lack of complete satisfaction.

Weber (1972) conducted a study in three small towns in Pennsylvania and found that about 67% of the 104 homemakers were satisfied with the professional drycleaning services, about 21% were indifferent, and about 12% were dissatisfied. The most frequently mentioned problems included the non-removal of spots, shrinkage, and presence of odor after drycleaning, respectively.

Although consumers in the previously mentioned localized studies were found to be generally satisfied with the professional drycleaning services, the most frequently mentioned cause for dissatisfaction was the poor quality of workmanship of the cleaner. More recent national surveys conducted in the United States and Canada have indicated, however, that consumers are more dissatisfied with the professional cleaner's business practices than with the cleaner's quality of workmanship. In the Neighborhood Cleaners Association (1972) survey conducted in the United States with 1320 respondents, Kirpatrick's (1970) national survey with 200 Canadians, and Haskett's (1975) national survey with 300 Canadians, "poor quality of workmanship" was never cited as a major complaint. Rather, the major complaints involved the fol-

lowing business practices: (a) unfriendly attitudes of employees; (b) customer instructions not followed; (c) delayed deliveries; and (d) complaints not rectified properly. While the results of these surveys indicate that the cleaners have minimized their problems regarding quality of workmanship, they have neglected to keep up the quality of consumer services.

Recent statistics from a research project developed by the U. S. Office of Consumer Affairs in 1976 showed that less than 5% of the 92 users of laundry and drycleaning services reported levels of dissatisfaction (Day & Bodur, 1978). Although these statistics indicate that the servicing performed by professional cleaners is not a high-problem area, the study of professional cleaners is still important since the consumer has little or no alternative but to patronize them when certain textile products need to be cleaned.

The Independent Testing Laboratory

The role of a testing laboratory is to scientifically analyze consumer complaints regarding merchandise failure. Myers (1961) recognized the laboratory as an untapped source of information for the producer in a search for profits, and for the consumer in a search for quality performance in textile products. Myers collected data from the National Institute of Drycleaning laboratory and categorized consumer complaints into two groups: (a) complaints were considered to be "justifiable" if the failure of the product was traceable to the manufacturer; and (b) complaints were considered to be "non justifiable" if the failure of the product was traceable to the consumer. Based on the 1959 statistics of the National Institute of Drycleaning, justifiable complaints included color failure, fabric damages, dimensional instability, and damages to the finish; unjustifiable complaints included damaged from stains, fabric damages, and damage to dyes. The statistics indicated that the responsibility for merchandise failure was attributed to the consumer about 41% of the time, the manufacturer about 37% of the time, and the drycleaner about 19% of the time, and unknown causes accounted for the remaining 3%.

Seventeen years later, recent statistics from the International Fabricare Institute (formerly known as the National Institute of Drycleaning) showed that the manufacturer was responsible for 45% of the commercially laundered problem cases (International Fabricare Institute, 1978).

The designation of responsibility may differ between a laboratory which is affiliated with a business or service organization and an independent testing laboratory (i.e., the International Fabricare Institute and the Textile Analysis Service at the University of Alberta, respectively). According to the statistics from the International Fabricare Institute 1976 report , 52.9% of the responsibility was designated to the manufacturer and 31.8% to the consumer. The Textile Analysis Service 1977-1978 report[1] designated only 30.9% of the responsibility for damage to the manufacturer (e.g., delamination of the fabric, incorrect fiber content labelling) and only 20% to the consumer (e.g., food stain occurred during consumer use with the product). The Textile Analysis Service designated a higher percentage (22.9%) of the responsibility to the professional cleaner (e.g., shrinkage, change in color) than the International Fabricare Institute (14.2%).

The noticeable differences between these two reports could be influenced by the practices of the Textile Analysis Service. The Textile Analysis Service is available to any individual, business, private or government agency while the International Fabricare Institute requires the party to be a member of their organization. When there is difficulty in designating responsibility for damage to a specific party involved in a dispute because of insufficient information, the Textile Analysis Service classifies the problem under "unknown causes". The Textile Analysis Service 1977-1978 report showed that 14.6% of the responsibility was designated to unknown causes while the International Fabricare Institute (1976) reported only 1.1% due to unknown causes. The Textile Analysis Service also includes another category, natural causes (e.g., sunlight deterioration), as a source of responsibility. This category accounted for 11.6% of the problems.

Myers (1961) also noted that testing laboratories differed in their philosophy, in their policies of handling complaints, and in their views concerning the expected serviceability of specific items. The Textile Analysis Service voluntarily uses The International Fair Claims Guide for Consumer Textile Products as a guideline for determin-

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[1]The statistics for responsibility for damage were recalculated to exclude the miscellaneous category from the calculations.

ing the expected serviceability of a product.

> The National Fair Claims Guide for Consumer Textile Products is a "procedure" for deciding responsibility or liability in damage claims involving textile products, a "reference source" on definitions pertaining to textile performance claims, renovation procedures, and damage problems, and a "method" of determining the value of a textile product for claims adjustment purposes. (International Fabricare Institute, 1973, p. 2)

Post-Dissatisfaction Actions

This section will concentrate on consumers who are dissatisfied with their textile products and/or professional cleaners and the subsequent actions taken (if any) to correct the unsatisfactory situation.

Two studies have indicated that only a small proportion of dissatisfied consumers actually registered complaints. Steiniger and Dardis (1971) reported that of the 107 clothing complaints, only 25 complaints (23%) were registered by consumers while 82 complaints (77%) were not registered by consumers. Home furnishing complaints totaled 64, but only 14 complaints (22%) were registered by consumers. Nichols and Dardis (1973) also reported a small percentage of consumers (25%) who registered complaints with home furnishing problems.

Wall (1974) found that the likelihood of a consumer registering a complaint was not related to being dissatisfied or experiencing clothing problems. Rather, personal characteristics and internal influences could predict whether a consumer would take action or not.

Steiniger and Dardis (1971) found that the most popular reason for not registering a complaint was that the action was too troublesome. This reason was given 54% of the time by dissatisfied consumers who experienced clothing problems and 28% of the time by dissatisfied consumers who experienced home furnishing problems. Nichols and Dardis (1973) found that "nothing would be done" was expressed by more than one-half of the consumers who did not register a complaint and more than one-fourth of the consumers felt that registering a complaint was too much trouble.

Nichols and Dardis (1973) reported that of those consumers who registered

complaints about home furnishing products, 48% reported that no satisfactory action was taken by the store or manufacturer. Steiniger and Dardis (1971) reported that although the store and/or manufacturer took back 60% of the clothing items and 43% of the home furnishing items, no satisfactory action was taken in one-third of all clothing complaints and in one-half of all home furnishing complaints.

Contrary to the previous studies, Best and Andreasen (1976) conducted a national study involving 2,419 Americans and reported a higher percentage of consumers who obtained satisfactory redress with clothing problems. More than 75% of the consumers received satisfactory redress while less than 20% of the consumers reported unsatisfactory redress. These recent results could indicate an improvement on the part of the manufacturer and retailer in satisfying their customers.

There is little information available on consumers who register complaints to the professional cleaner and the subsequent handling of these complaints by the cleaner. It has been estimated that for every customer that actually complains to the professional cleaner, there are another four or five who do not complain and instead take their business elsewhere (Kirpatrick, 1970).

The problem of improper rectification of complaints was ranked fifth in importance in Haskett's (1975) Canadian study on reasons why customers stopped patronizing a particular cleaner. In the Neighborhood Cleaners Association (1972) study, 5% of the Americans interviewed reported consumer dissatisfaction with the cleaner's improper rectification of a complaint.

Unsatisfactory redress settlements were reported and explained by one woman in Kirpatrick's (1970) study. Although settlements were made, they were never adequate to replace the item. The settlement was often based on the depreciable value of an item and the value placed on the item by the consumer was never fully compensated for by the settlement.

Summary

The selected review of literature gives an indication of the limited number of studies of consumer satisfaction with clothing and textile products, the professional cleaning industry, the testing laboratory, and post-dissatisfaction actions. It is important that studies of consumer satisfaction with textile products be continued. The information from such studies is valuable to each participant in the marketplace: the

manufacturer in determining the strengths and weaknesses of the product from consumer feedback and laboratory analyses; the professional cleaner in determining the quality of his service from consumer feedback and laboratory analyses; the consumer in realizing the importance of care and performance attributes when making a purchase as well as the importance of following up on an unsatisfactory purchase; and the researcher in continuing investigations of consumer satisfaction.

CHAPTER III

METHODS AND PROCEDURES

This section includes the following: (a) conceptual framework, (b) data collection (selection of the sample and development of the questionnaire), and (c) analysis of data.

Conceptual Framework

The conceptual framework used in this study (Figure 2) is based on Engel, Blackwell, and Kollat's (1978) theory of satisfaction regarding the confirmation of beliefs and the outcome of an act as well as Day and Landon's (1976) post-dissatisfaction actions framework for the dissatisfied consumer.

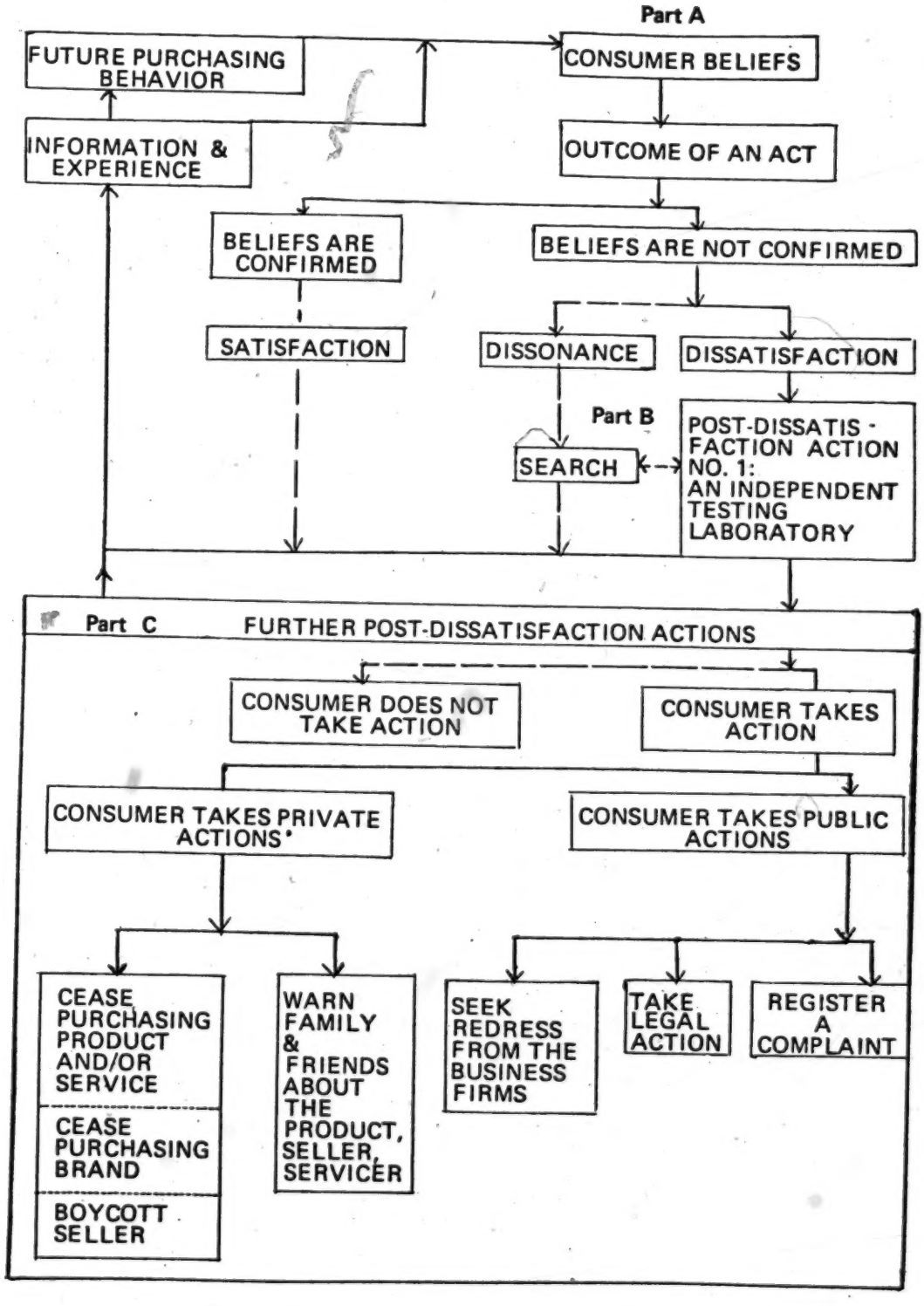
According to Engel et al. (1978, p. 493) beliefs, like expectations, are formed prior to the consequences of an act or usage of a product. The outcomes following the purchasing act or usage of a product will either confirm or cease to confirm the beliefs held by the consumer. If the belief is confirmed, then the consumer is rewarded and satisfied. If the belief is not confirmed, however, the consumer experiences either dissatisfaction or post-decision dissonance.

The consumers in this study were presumed to have initially experienced dissatisfaction instead of post-decision dissonance. Engel et al. (1978) defines post-decision dissonance as a doubt that a correct choice was made among the available alternatives. This study, however, examines a particular situation in which the consumers do not have a choice in determining the method of servicing their textile products; the products had to be commercially serviced.

In addition, dissonance is usually associated with the cognitive component of attitude--the manner of perceiving an object (Festinger, 1962). Dissatisfaction, however, could be associated with the affective component of attitude--the emotional (feelings of like/dislike) toward an object. Thus, the consumers in this study were presumed to be dissatisfied with the performance of their textile products during commercial servicing and/or with the professional cleaner's performance when servicing the products.

Part A of the conceptual framework in Figure 2 depicts the relationship between

Figure 2. The Conceptual Framework Used in the Study.



consumer beliefs and the outcome of an act. The first step examines the consumer's beliefs regarding the commercial serviceability of the textile product and the performance of the professional cleaner. The outcome involves the performance of the product after being commercially serviced and the performance of the cleaner while servicing the product. When the outcome produces favorable results (i.e., confirming the consumer's beliefs regarding the product and/or cleaner), the satisfactory evaluation is then stored as information and experience. When the outcome produces unfavorable results (i.e., the consumer's beliefs regarding the product and/or cleaner are not confirmed), the unsatisfactory evaluation is also stored as information and experience.

According to Day and Landon (1976) dissatisfied consumers may decide to initiate private or public actions or decide not to take action (preferring to forget the experience). An assumption of this study is that the first post-dissatisfaction action[2] (Part B of Figure 2) for all consumers was the submission of the damaged textile product to the Textile Analysis Service, although the researcher recognized that the consumer may have previously approached other sources such as the retailer, servicer, or government agency, thus explaining the variety of sources which submitted the damaged products to the laboratory.

The consumer may form beliefs regarding the possible results from the independent testing laboratory. A return to Part A of the conceptual framework is in order to examine the consumer's beliefs regarding the party responsible for the damaged textile product. The consumer perceives a particular party believed to be responsible and the outcomes of the laboratory report will either confirm or not confirm the beliefs. If the consumer's beliefs are supported by the laboratory report, the consumer will be satisfied with the report. If the consumer's beliefs are not supported by the laboratory report, the consumer may or may not be dissatisfied with the report. Satisfaction or dissatisfaction with the report will probably depend on the party which is designated as responsible by the laboratory. The consumer may be satisfied to learn that either the cleaner or manufacturer is responsible, but may not be satisfied to learn that the consumer is cited for negligence. Damage to the product resulting from natural causes

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[2]The researcher recognizes that the laboratory could serve as a possible source in a consumer's post-decision information search.

may be acceptable to the consumer, but damage due to unknown causes may produce consumer dissatisfaction for the consumer will not have obtained any useful information in the attempt to achieve satisfaction with the textile product.

Both satisfactory and unsatisfactory evaluations regarding the laboratory report are then stored as information and experience. Regardless whether the consumer is satisfied or dissatisfied with the laboratory report, it is hypothesized that both groups of consumers will recognize that satisfaction with their damaged textile products may be obtained by searching for and engaging in other forms of post-dissatisfaction actions.

The various types of post-dissatisfaction actions were not included in the Engel et al. (1978) consumer behavior model. Thus, Day and Landon's (1976) framework of post-dissatisfaction actions was incorporated into the conceptual framework for this study. Part C of Figure 2 identifies the specific types of private and public actions which the dissatisfied consumer may take.

Again, consumers may form beliefs regarding the possible outcomes of further post-dissatisfaction actions (Part A of Figure 2). If actions are initiated, the results may confirm or cease to confirm the consumer's beliefs and the resulting evaluations are stored as information and experience.

The purpose of the study was to explain consumer satisfaction with the commercial serviceability of a selected group of textile products. Thus, all evaluations regarding this experience were examined. Engel et al. (1978, p. 404) believed that satisfactory/unsatisfactory experiences and favorable/unfavorable types of information could influence the consumer's evaluative criteria and beliefs and influence future purchase decisions. Specifically, satisfactory evaluations can strengthen beliefs and increase the probability that a consumer will repeat a similar act.

Data Collection

Selection of the Sample

The non-random sample in this study was selected from the files of the Textile Analysis Service for the time period between September 1977 to March 1979. The Textile Analysis Service is an independent laboratory in the Faculty of Home Economics at the University of Alberta in Edmonton. This laboratory analyzes textile per-

formance problems submitted by manufacturers, retailers, professional cleaners, consumers, government agencies, and other interested agencies.

Complete consumer information regarding the name, address, and telephone numbers were obtained for 84 cases while 174 cases had incomplete consumer information. The various sources which submitted the 174 incomplete cases to the Textile Analysis Service included the professional cleaners (92%), the retailers (6.3%), and the consumers (1.7%).

Difficulties were encountered in obtaining the missing consumer information. Upon contacting the cleaners by mail and personal interviews, the major reasons given for the cleaner's inability to supply the necessary information were: (a) the company does not keep detailed records unless a monetary settlement has been made and (b) the Textile Analysis Service reports were not kept by the company, rather these reports were given to the customers.

Various city telephone directories were also searched in an attempt to obtain the missing consumer information. The Edmonton Street Address Numerical Directory and the 1979 Edmonton & Vicinity Phone Book were searched to verify and if necessary, update the consumers' addresses and telephone numbers. The results of all of these actions provided an additional 31 cases (27%) to the sample.

A covering letter (see Appendix A) explaining the purpose of the study, a questionnaire, and a self-addressed stamped return envelope were mailed to 115 consumers. One week following the date of mailing, follow-up telephone reminders were made to the consumers whose questionnaires had not been received. These consumers were asked about their intentions regarding completion of the questionnaires and if requested, clarifications were given regarding any of the included questions.

Development of the Questionnaire

The questionnaire (Appendix B) was developed to obtain information regarding a consumer's experience with the commercial servicing of a particular textile product. Part 1 of the questionnaire asked for the consumer's expectations and satisfaction with the performance of the textile product during cleaning while Part II asked for the consumer's expectations and satisfaction with the professional cleaner's performance while servicing the textile product. Part III asked for the consumer's perception of

responsibility for damaging the product and satisfaction with the designation of responsibility from the laboratory. Part IV asked the consumer to indicate if actions were taken to resolve the problem. If the response was positive, the consumer was requested to list all actions taken, indicate the expectation regarding resolution of the problem and indicate satisfaction with the results of each action taken. If the response was negative, the consumer was requested to proceed to Part V of the questionnaire. Part V, the reevaluation of the entire experience, asked the consumer about the final satisfaction regarding each aspect of the experience and the intention to repeat each aspect of the experience. For each part of the questionnaire, a satisfaction-dissatisfaction scale was developed to measure consumer satisfaction.

Prior to mailing the questionnaires to the selected sample, questionnaires were mailed to 17 previous users of the Textile Analysis Service to determine if there were any difficulties in understanding the questions. Only Edmonton consumers were selected in order to minimize the time spent on mailing and to limit telephone reminders to local calls. The textile products were not limited to the specified products in the study; wool coats, dresses, and pant suits were also included. Cases which had been analyzed by the Textile Analysis Service within the past two years were selected to determine if consumers could adequately recall the experience.

Six questionnaires were returned, a return rate of 35.3%. When follow-up telephone reminders were made, it was found that five consumers could not be reached at home; three consumers had unlisted telephone numbers or numbers which were not in service; one consumer was not interested in participating; one man did not return the questionnaire despite his stated intention; and one woman felt that she could not accurately recall the experience.

Of those questionnaires which were returned, the results showed that only the extreme values of the satisfaction-dissatisfaction scales were being selected. The scales were then simplified from 7-point scales to 5-point scales. Wall (1974) also found that her 7-point satisfaction scales could be collapsed to 5-point scales due to the insufficient number of responses in particular ratings.

The consumers in the pre-test also indicated general confusion in understanding the scales. To clarify the ordinal values (5,4,3,2,1) on the satisfaction-dissatisfaction

scales, each value was labelled with a brief descriptor ranging from "Definitely Satisfied" to "Definitely Not Satisfied", respectively. In Part IV of the questionnaire, the ordinal values (5,4,3,2,1) on the expectation scales were clarified with brief descriptor labels ranging from "Complete Resolution of the Problem" to "No Resolution of the Problem", respectively.

Analysis of Data

The questionnaire responses were coded then transferred to computer cards for analysis. Descriptive information was reported in frequency counts and percentages. The hypotheses were statistically analyzed using the following nonparametric tests: the Mann-Whitney U Test, the Sign Test, the Chi-square for two independent samples, and the Kruskal-Wallis One-Way Analysis of Variance. For each hypothesis, the respective required data, level of measurement, corresponding questionnaire item number(s), and method of statistical analysis are listed in Table I.

A brief discussion regarding each of the statistical tests used in this study follows:

Mann-Whitney U Test

The Mann-Whitney U test is one of the most powerful nonparametric tests and is often regarded as the nonparametric alternative to the t test with little loss in power efficiency (Siegel, 1956, p. 116). This test may be used to determine whether two independent groups have the same distribution. If the scores of the two groups are ranked together, the rankings of both groups will be intermingled. However, if the scores of one group are significantly greater than the other, the rankings of the superior group will probably be higher than the rankings of the inferior group.

The value of U (the statistic used in this test) is determined by counting the number of ranks of the superior group which fall below the ranks of the inferior group. The value of U is zero when all of the rankings of the superior group are located above the rankings of the inferior group. The significance of the differences between two groups is determined by the value of U; the lower the value of U, the more significant is the difference.

Sign Test

The sign test, based on the binomial distribution theory may be used to determine

Table I

Statistical Analyses of the Null Hypotheses

Null Hypothesis	Data Required	Level of Measurement	Questionnaire Item Numbers	Statistical Analysis
1	Beliefs Regarding:	Nominal		Mann-Whitney U Test
	(a) textile product		1,2,3	
	(b) professional cleaner		5,6	
	(c) report from the laboratory		8,9	
	(d) post-dissatisfaction actions		12,13,14	
	Satisfaction scores regarding each of the aspects listed above	Ordinal	4,7,10,15	
2	Satisfaction with the textile product	Nominal	4	Sign Test
	Satisfaction with the cleaner	Nominal	7	
3	Consumer's perception of responsibility	Nominal	8,9	Chi-square
	Initiation of further action	Nominal	11	
4	Types of Actions:	Nominal		Kruskal-Wallis One-Way Analysis of Variance
	(a) all types of actions		12	
	(b) specific types of private actions		12	Mann-Whitney U Test
	(c) specific types of public actions		12	Kruskal-Wallis
	Satisfaction scores regarding actions	Ordinal	15	
5	Types of Public Actions:	Nominal		
	(a) took redress action against business firms		12	Kruskal-Wallis
	(b) took legal action against business firms		12	Kruskal-Wallis
	(c) registered complaints to various agencies		12	Mann-Whitney U Test
	Satisfaction scores regarding actions	Ordinal	15	
6	Intention:	Nominal		Mann-Whitney U Test
	(a) to repurchase the product		17	
	(b) to use the same cleaner		18	
	(c) to use the laboratory services again		19	
	(d) to initiate similar post-dissatisfaction actions		20	
	Final satisfaction scores regarding each aspect listed above	Ordinal	16	

the significance of differences between dichotomous variables obtained from a one-sample group (Marascuilo & McSweeney, 1977, p. 39). The direction of differences between the variables, represented by plus and minus signs, are used as data (Siegel, 1956, p. 69). According to the probability associated with the occurance of signs in the binomial distribution, half of the differences should be negative signs and half should be positive signs.

Chi-square

The Chi-square test can determine the significance of differences between two independent groups when measurement consists of nominal data (Siegel, 1956, p. 104). If two groups differ with respect to a characteristic, then the two groups will differ with respect to the frequencies of group members in specific categories. When the difference between observed and expected frequencies is small, the value of Chi-square will be small. Therefore, the hypothesis that two sets of characteristics are independent of each other cannot be rejected. The degree of acceptance depends on the specified level of significance. As the differences between frequencies increase, the values of Chi-square increase, and the likelihood that two groups differ with respect to the characteristics also increases.

Kruskal-Wallis One-Way Analysis of Variance

The Kruskal-Wallis One-Way Analysis of Variance may be used to determine significant differences in some dependent variables when three or more independent samples are involved in a nonparametric study (Siegel, 1956, p. 184). The test is based on the notion that if there are no differences among the groups representing the independent variable, then when all the scores are ranked, the average sum of ranks for each group should be similar. However, if there are differences among the independent groups, the average sum of ranks for each group will show noticeable differences.

CHAPTER IV

RESULTS

This chapter includes descriptive and statistical analysis of the data and the testing of hypotheses.

Description of the Sample

Of the initial 115 cases in the sample, 45 consumers returned their questionnaires. The frequency and percentage distributions for the consumer's residence, the specific textile product, the source which submitted the textile problem, and the time of analysis by the Textile Analysis Service are presented in Table II.

The 45 respondents comprised a 39.1% return rate (Table III). Of the 70 consumers who did not return their questionnaires, more than half of the group (51.4%) could not be reached at home despite the fact that three attempts were made to contact each Edmonton consumer and two attempts were made to contact each of the out-of-towners during the limited University switchboard hours of operation (Monday-Friday, 7:30 A.M. to 6:00 P.M.).

During the telephone reminders, eleven consumers claimed that they had not received the questionnaires and thus replacement questionnaires were mailed to them. Four consumers returned the replacement questionnaires.

Descriptive Analysis of Consumer Beliefs, Satisfaction, and Reevaluations

The descriptive analysis of the data regarding the textile products, professional cleaners, the report from the independent testing laboratory and post-dissatisfaction actions is outlined below and summarized in Tables IV to XV.

Textile Products

Respondents generally expected the textile products to be "clean" or "in the same condition as they had been before taking them to the cleaners". Although one woman acknowledged that her leather coat could be difficult to clean, she still expected it to be returned "in the same general condition with the light soiling removed".

Not one consumer had their beliefs confirmed with a returned product which was "clean" or "in the same condition". For all 45 cases (100%), these beliefs were

Table II

Frequency and Percentage Distributions of Sample Cases

Item		Frequency	Percent
Consumer's Residence			
Edmonton		21	46.7
Other Cities in Alberta		20	44.4
British Columbia		1	2.2
Saskatchewan		3	6.7
	Total	45	100.0
Textile Product			
Carpets & Rugs		3	6.7
Bedspreads		4	8.9
Upholstery		5	11.1
Draperies & Curtains		8	17.8
Suede, leather & fur garments		19	42.2
Down-filled garments		6	13.3
	Total	45	100.0
Submission of Problem to the Textile Analysis Service			
Drycleaner		25	55.6
Consumer		17	37.8
Retailer		2	4.4
Government Agency		1	2.2
	Total	45	100.0
Time of Analysis by the Textile Analysis Service			
September 1977 - August 1978		30	66.7
September 1978 - March 1979		15	33.3
	Total	45	100.0

Table III

Response to Mailed Questionnaires

Response		Frequency	Percent	Frequency	Percent
Returned Questionnaires		Frequency	Percent		
Returned within two weeks		31	68.9		
Returned after the telephone reminder		9	20.0		
Returned replacement questionnaire [1]		4	8.9		
Returned after two months		1	2.2		
	Total	45	100.0	45	39.1
Did Not Return Questionnaires					
No answer to telephone reminder		36	51.4		
Promised to return the questionnaire when telephone reminder was made		12	17.1		
Not interested in participating; "too busy"		9	12.9		
Claimed that no questionnaire was received, but promised to return the replacement questionnaire [1]		7	10.0		
Unlisted number/not in service		5	7.2		
Moved; no forwarding address		1	1.4		
	Total	70	100.0	70	60.9
Total Number of Questionnaires Mailed				115	100.0

[1] Replacement questionnaires were mailed to consumers who claimed that they had not received any questionnaire prior to the telephone reminders.

not confirmed. But dissatisfaction with the performance of the product did not show up in all of the cases; rather almost half of the group indicated satisfaction (Table IV).

When reevaluating the textile product, about two-thirds of the consumers (66.7%) indicated that they would repurchase a similar product while the remaining third of consumers (33.3%) indicated that they would not repurchase the product (Table V). Final satisfaction with the product was indicated by 18 of the 28 consumers who intend to repurchase the item while final dissatisfaction was indicated by 8 of the 14 consumers who did not intend to repurchase the same item.

Consumers who indicated an intention to repurchase a similar textile product most frequently stated that they were satisfied with the use and appearance of the product while consumers who indicated that they would not repurchase a similar product stated that the product was not serviceable and that maintenance was too expensive and too troublesome.

Professional Cleaners

The two most frequently mentioned expectations regarding the professional cleaner's quality of workmanship were "to do a good cleaning job" and "to do a good job based on their advertisements and a good reputation".

These beliefs were confirmed in two cases (4.4%) and not confirmed in 43 cases (95.6%). Satisfaction was indicated by the respondents who believed that the cleaner had done a good job while dissatisfaction was indicated by all respondents whose beliefs were not confirmed (Table VI).

When reevaluating the cleaner, more than 80% of the consumers indicated that they would not patronize the same cleaner while less than 20% of the consumers indicated that they would patronize the same cleaner (Table VII). Final dissatisfaction with the cleaner was indicated by the majority of consumers regardless if they intended to patronize or intended not to patronize the same cleaner.

Consumers who indicated that they would not return to the same cleaner frequently stated that they had received unprofessional treatment and that their problems had not been satisfactorially resolved. Several consumers indicated that they would patronize the same cleaner but only for "ordinary" items–not expensive, speciality items.

Table IV

Outcome of Beliefs and Satisfaction Scores Regarding the Textile Product

Outcome of Beliefs	Satisfaction Scores: Definitely Not Satisfied (1)	Not Satisfied (2)	Unsure (3)	Satisfied (4)	Definitely Satisfied (5)	Row Total
	Frequency	Frequency	Frequency	Frequency	Frequency	Frequency (%)
Consumers Whose Beliefs Were Confirmed	0	0	0	0	0	0 (0.0)
Consumers Whose Beliefs Were Not Confirmed	17	3	3	7	14	44 (100.0)
Total (%)	17 (38.6)	3 (6.8)	3 (6.8)	7 (16.0)	14 (31.8)	44 (100.0)

Table V

Final Satisfaction Scores and Behavioral Intentions Regarding the Textile Product

Intention of Repeating Action	Satisfaction Scores: Definitely Not Satisfied (1)	Not Satisfied (2)	Unsure (3)	Satisfied (4)	Definitely Satisfied (5)	Row Total
	Frequency	Frequency	Frequency	Frequency	Frequency	Frequency (%)
Yes	4	1	5	6	12	28 (66.7)
No	5	3	3	2	1	14 (33.3)
Total (%)	9 (21.5)	4 (9.5)	8 (19.0)	8 (19.0)	13 (31.0)	42 (100.0)

U=56.5
p=0.004

Table VI

Outcome of Beliefs and Satisfaction Scores Regarding the Professional Cleaner

Outcome of Beliefs	Satisfaction Scores					Row Total
	Definitely Not Satisfied (1)	Not Satisfied (2)	Unsure (3)	Satisfied (4)	Definitely Satisfied (5)	
	Frequency	Frequency	Frequency	Frequency	Frequency	Frequency (%)
Consumers Whose Beliefs Were Confirmed	0	0	0	1	1	2 (4.4)
Consumers Whose Beliefs Were Not Confirmed	37	6	0	0	0	43 (95.6)
Total (%)	37 (82.2)	6 (13.4)	0 (0.0)	1 (2.2)	1 (2.2)	45 (100.0)

Table VII

Final Satisfaction Scores and Behavioral Intentions Regarding the Professional Cleaner

Intention of Repeating Action	Satisfaction Scores					Row Total
	Definitely Not Satisfied (1)	Not Satisfied (2)	Unsure (3)	Satisfied (4)	Definitely Satisfied (5)	
	Frequency	Frequency	Frequency	Frequency	Frequency	Frequency (%)
Yes	4	1	2	1	0	8 (18.6)
No	28	5	1	0	1	35 (81.4)
Total (%)	32 (74.4)	6 (14.0)	3 (7.0)	1 (2.3)	1 (2.3)	43 (100.0)

U=84.5
p=0.171

The Laboratory Report

The professional cleaner was perceived as being responsible for damaging the textile products by 82.2% of the consumers. This large percentage was not confirmed by the laboratory; rather the cleaner was identified as responsible for less than a quarter (22.2%) of the cases (Table VIII). The manufacturer was designated as responsible for a larger percentage of the cases (31.1%) than the cleaner while damage resulting from natural causes was identified as responsible for another portion (20.0%) of the cases.

The beliefs held by 11 consumers (31.4%) were confirmed by the laboratory report and the beliefs held by 24 consumers (68.6%) were not confirmed. All of the consumers whose beliefs were confirmed indicated satisfaction with the laboratory report; those consumers whose beliefs were not confirmed almost equally indicated either dissatisfaction, uncertainty, or satisfaction with the report (Table IX).

When reevaluating the laboratory report, more than 85% of the consumers indicated that they would seek the services of the laboratory again while less than 15% of the consumers indicated that they would not seek the services again (Table X). Final satisfaction with the laboratory report was indicated by 19 of the 33 consumers who intend to use the Textile Analysis Service again while final dissatisfaction was indicated by all five consumers who did not intend to use the services of the laboratory again.

Consumers who indicated that they would use the laboratory again frequently stated that they were satisfied with its ability to impartially determine responsibility. Five consumers, however, believed that the laboratory results were wrong and therefore would not bother to seek its services again.

Post-Dissatisfaction Actions

Thirty-one consumers (68.9%) took further post-dissatisfaction actions after having their damaged product analyzed by a laboratory while 14 consumers (31.1%) did not initiate actions. The majority of the consumers expected a partial or a complete resolution to their problems when initiating further actions (Table XI).

These beliefs were confirmed in 11 cases (44.0%) and not confirmed in 14 cases

Table VIII

Perceived and Designated Responsibility for Damage to the Product

Responsibility	Manufacturer/ Retailer	Cleaner	Unknown	Consumer	Natural Causes	Manuf./ Retailer & Cleaner	Cleaner & Natural Causes	Total
	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
Consumer's Perception	2 (4.4)	37 (82.2)	2 (4.4)	0 (0.0)	0 (0.0)	3 (6.7)	1 (2.3)	45 (100.0)
Designation by Laboratory	14 (31.1)	10 (22.2)	8 (17.8)	4 (8.9)	9 (20.0)	0 (0.0)	0 (0.0)	45 (100.0)

Table IX

Outcome of Beliefs and Satisfaction Scores Regarding the Laboratory Report

Outcome of Beliefs	Satisfaction Scores					Row Total
	Definitely Not Satisfied (1)	Not Satisfied (2)	Unsure (3)	Satisfied (4)	Definitely Satisfied (5)	
	Frequency	Frequency	Frequency	Frequency	Frequency	Frequency (%)
Consumers Whose Beliefs Were Confirmed	0	0	0	2	8	10 (31.3)
Consumers Whose Beliefs Were Not Confirmed	5	3	8	4	2	22 (68.8)
Total (%)	5 (15.6)	3 (9.4)	8 (25.0)	6 (18.8)	10 (31.3)	32 (100.0)

U=16.0
p=0.001

Table X

Final Satisfaction Scores and Behavioral Intentions Regarding the Laboratory Report

Intention of Repeating Action	Satisfaction Scores					Row Total
	Definitely Not Satisfied (1)	Not Satisfied (2)	Unsure (3)	Satisfied (4)	Definitely Satisfied (5)	
	Frequency	Frequency	Frequency	Frequency	Frequency	Frequency (%)
Yes	1	5	8	9	10	33 (86.8)
No	5	0	0	0	0	5 (13.2)
Total (%)	6 (15.8)	5 (13.2)	8 (21.0)	9 (23.7)	10 (26.3)	38 (100.0)

U=2.5
p=0.000

Table XI

Frequency and Percentage Distribution of Expectations Regarding the Resolution of Problems During Post-Dissatisfaction Actions

Expectations		Frequency	Percent
No Resolution of the Problem	(1)	1	2.7
Hardly Any Resolution of the Problem	(2)	1	2.7
Unsure	(3)	6	16.2
Partial Resolution of the Problem	(4)	14	37.8
Complete Resolution of the Problem	(5)	15	40.6
	Total	37	100.0

(56.0%). Satisfaction was indicated by 10 of the 11 consumers whose beliefs were confirmed (Table XII). One man who indicated dissatisfaction did not expect any resolution from the cleaner and did not receive redress for his damaged down-filled ski jacket. Dissatisfaction was indicated by 12 of the 14 consumers whose beliefs were not confirmed. One of the two women who indicated satisfaction had expected hardly any resolution of the problem but instead received a partial refund for her suede coat from the retailer. Although the second woman had expected a complete resolution of the problem and received only a partial refund for her draperies from the retailer, she was satisfied with the monetary refund.

A total of 41 actions were taken by the 31 consumers who did initiate further post-dissatisfaction actions. Public actions accounted for 92.7% of all the actions taken while 7.3% were private actions. Of all the different types of actions, attempting to obtain redress from the cleaner (39.1%) and retailer (24.4%) were the most frequent actions taken (Table XIII). Consumers who sought redress from the cleaner indicated dissatisfaction with the cleaner's negative attitude towards resolving the problem and with the recleaning or refinishing jobs (Table XIV). Consumers, however, were generally satisfied with the retailer's resolutions: (a) refunding a portion or complete purchase price of the product; (b) replacing the item; and/or (c) mailing the damaged product to the manufacturer for repair or replacement.

Only three consumers indicated taking private actions against the cleaner by ceasing to patronize the same cleaner again. They preferred to try another cleaning establishment or to reclean the item themselves with the suggested procedure outlined in the laboratory report. It should be noted, however, that when reevaluating the cleaner, more than 80% of the consumers indicated their intention to stop patronizing the same cleaner.

When reevaluating all post-dissatisfaction actions, more than 80% of the consumers indicated an intention to follow similar actions while less than 20% indicated no intention to follow the same actions. Final satisfaction with the actions taken was indicated by 12 of the 21 consumers who intend to follow similar actions while final dissatisfaction was indicated by three of the four consumers who did not intend to repeat similar actions (Table XV).

Table XII

Outcome of Beliefs and Satisfaction Scores Regarding Post-Dissatisfaction Actions

Outcome of Beliefs	Satisfaction Scores					Row Total
	Definitely Not Satisfied (1)	Not Satisfied (2)	Unsure (3)	Satisfied (4)	Definitely Satisfied (5)	
	Frequency	Frequency	Frequency	Frequency	Frequency	Frequency (%)
Consumers Whose Beliefs Were Confirmed	1	0	0	5	5	11 (44.0)
Consumers Whose Beliefs Were Not Confirmed	8	4	0	2	0	14 (56.0)
Total (%)	9 (36.0)	4 (16.0)	0 (0.0)	7 (28.0)	5 (20.0)	25 (100.0)

U=15.0

p=0.000

Table XIII

Frequency and Percentage Distribution of Post-Dissatisfaction Actions

Action		Frequency	Percent
Private Actions :			
I. Decide to:	(a) cease patronizing servicer	3	7.3
	(b) boycott seller	0	0.0
II. Warn family and friends about the product, seller, servicer		0	0.0
Public Actions:			
I. Seek redress directly from the:			
	(a) manufacturer	1	2.4
	(b) retailer	10	24.4
	(c) cleaner	16	39.1
II. Take legal action to obtain redress from the:			
	(a) manufacturer	0	0.0
	(b) retailer	0	0.0
	(c) cleaner	3	7.3
III. Register a complaint with a:			
	(a) business organization (i.e., Better Business Bureau)	3	7.3
	(b) government agency (i.e., "Consumer & Corporate Affairs")	5	12.2
	(c) private consumer organization	0	0.0
	Total	41	100.0

Table XIV

Frequency Distribution of Satisfaction Scores Regarding Post-Dissatisfaction Actions Taken by Consumers

Action	Satisfaction Scores: Definitely Not Satisfied (1)	Not Satisfied (2)	Unsure (3)	Satisfied (4)	Definitely Satisfied (5)	Row Total	
	Frequency	Frequency	Frequency	Frequency	Frequency	Frequency	(%)
Private Actions:							
I. Cease patronizing cleaner	0	0	0	0	3	3	(8.8)
Public Actions:							
I. Seek redress from the:							
(a) manufacturer	0	0	0	0	1	1	(2.9)
(b) retailer	0	1	1	5	2	9	(26.5)
(c) cleaner	7	1	0	2	1	11	(32.4)
II. Take legal action to obtain redress from the :							
(a) cleaner	0	2	0	0	1	3	(8.8)
III. Register a complaint with the:							
(a) Better Business Bureau	2	0	0	1	0	3	(8.8)
(b) "Consumer & Corporate Affairs"	1	2	1	0	0	4	(11.8)
Total	10	6	2	8	8	34	
(%)	(29.4)	(17.7)	(5.9)	(23.5)	(23.5)	(100.0)	

Hypothesis 4(a) H=7.990; p=0.023
Hypothesis 4(c) H=1.951; p =0.189

Hypothesis 5(a) H=8.815; p =0.009
Hypothesis 5(c) U=4.0; p=0.500

Table XV

Final Satisfaction Scores and Behavioral Intentions Regarding Post-Dissatisfaction Actions

Intention of Repeating Action	Satisfaction Scores					Row Total
	Definitely Not Satisfied (1)	Not Satisfied (2)	Unsure (3)	Satisfied (4)	Definitely Satisfied (5)	
	Frequency	Frequency	Frequency	Frequency	Frequency	Frequency (%)
Yes	4	4	1	9	3	21 (84.0)
No	3	0	0	0	1	4 (16.0)
Total (%)	7 (28.0)	4 (16.0)	1 (4.0)	9 (36.0)	4 (16.0)	25 (100.0)

U=24.5
p=0.121

Consumers who indicated that they would follow similar actions frequently stated that they had received a satisfactory settlement as a result of taking further actions. Legal action was frequently mentioned as the best alternative in obtaining a satisfactory redress by those consumers who indicated that they would not repeat their previous actions.

Testing of the Null Hypotheses

Satisfaction and the Confirmation of Beliefs

Null Hypothesis 1:

1(a) There will be no significant difference in satisfaction between those consumers whose beliefs regarding the performance of the textile product during commercial servicing were confirmed and those consumers whose beliefs were not confirmed.

1(b) There will be no significant difference in satisfaction between those consumers whose beliefs regarding the performance of the professional cleaner when servicing the textile product were confirmed and those consumers whose beliefs were not confirmed.

1(c) There will be no significant difference in satisfaction between those consumers whose beliefs regarding the independent testing laboratory report were confirmed and those consumers whose beliefs were not confirmed.

1(d) There will be no significant difference in satisfaction between those consumers whose beliefs regarding the results of post-dissatisfaction action(s) were confirmed and those consumers whose beliefs were not confirmed.

The Mann-Whitney U Test was used to determine if significant differences in satisfaction existed between consumers whose beliefs were confirmed or not confirmed with respect to the various aspects of this particular experience. Hypotheses 1(a) and 1(b) could not be tested because of the large number of consumers whose beliefs were not confirmed in comparison to the very small number of consumers

with confirmed beliefs.

Highly significant differences, however, were found with respect to the laboratory report and post-dissatisfaction actions. Consumers whose beliefs regarding the source of responsibility were confirmed by the laboratory report were more satisfied ($p=0.001$) with the report than those consumers whose beliefs were not confirmed by the report (Table IX). Consumers whose expectations regarding the resolution of the problem were confirmed by the results of the various actions taken were more satisfied ($p=0.000$) with their actions than those consumers whose expectations were not confirmed by the results of the actions taken (Table XII). Therefore, null hypothe - eses 1(c) and 1(d) were rejected.

Satisfaction with the Product and Cleaner

Null Hypothesis 2:

> There will be no significant difference between a consumer's satisfaction with the performance of the textile product during commercial servicing and the consumer's satisfaction with the professional cleaner's performance while servicing the product.

The Sign Test indicated a highly significant difference ($p<0.001$) in satisfaction between the textile product and the professional cleaner. Consumers were more satisfied with the product than the cleaner; thus, null hypothesis 2 was rejected.

Confirmation of Beliefs and Initiation of Further Action

Null Hypothesis 3:

> There will be no significant difference in the consumer's decision to initiate further post-dissatisfaction action(s) between those consumers whose beliefs regarding responsibility for the damaged textile product were confirmed by the laboratory report and those consumers whose beliefs were not confirmed.

The Chi-square test for two independent samples was used to analyze null hypothesis 3. One cell in the 2 x 2 contingency table did not have the expected five cases; thus the Yates' correction for continuity (which gives a more conservative Chi-square value) was automatically performed in the SPSS Subprogram Crosstabs (Nie, Hull, Jenkins, Steinbrenner & Bent, 1975). Null hypothesis 3 was

was accepted (p=0.278).

Post-Dissatisfaction Actions and Satisfaction

Null Hypothesis 4:

There will be no significant difference in satisfaction among those consumers who took different types of post-dissatisfaction actions.

(a) among all types of actions

(b) between specific types of private actions, namely, ceasing to patronize the servicer and/or warning family and friends about the servicer

(c) among specific types of public actions, namely, seeking redress from the business firms, taking legal action, and/or registering a complaint

The Kruskal-Wallis One-Way Analysis of Variance was used to determine if a significant difference in satisfaction existed among the consumers who took different types of post-dissatisfaction actions when all types of actions were included in the analysis. A significant difference (p=0.023) in satisfaction was indicated (Table XIV). Therefore, null hypothesis 4(a) was rejected.

Due to the limited number of private actions taken by the consumers, null hypothesis 4(b) could not be analyzed by the Mann-Whitney U Test.

The Kruskal-Wallis One-Way Analysis of Variance indicated no significant difference (p=0.189) in satisfaction among those consumers who initiated different types of public actions (Table XIV). Therefore, null hypothesis 4(c) was accepted.

Null Hypothesis 5:

5(a) There will be no significant difference in satisfaction among consumers who sought redress directly from different types of business firms, namely, the manufacturer, retailer, and/or cleaner.

5(b) There will be no significant difference in satisfaction among consumers who took legal action to obtain redress from different business firms, namely, the manufacturer, retailer, and/or cleaner.

5(c) There will be no significant difference in satisfaction among consumers who registered a complaint with different types of consumer-oriented agencies, namely, a business, government, and/or private consumer agency.

The Kruskal-Wallis One -Way Analysis of Variance indicated a highly significant difference (p=0.009) in satisfaction among those consumers who sought redress from the different business firms (Table XIV). Therefore, null hypothesis 5(a) was rejected.

Due to the limited number of consumers who took legal action, null hypothesis 5(b) could not be analyzed by the Kruskal-Wallis One-Way Analysis of Variance.

The Mann-Whitney U Test indicated no significant difference (p=0.500) in satisfaction between those consumers who registered complaints to a business or government agency (Table XIV). Therefore, null hypothesis 5(c) was accepted.

Final Satisfaction and Behavioral Intentions

Null Hypothesis 6:

6(a) There will be no significant difference in final satisfaction with the commercial serviceability of the textile product between consumers who do or do not intend to repurchase a similar textile product.

6(b) There will be no significant difference in final satisfaction with the professional cleaner's performance between consumers who do or do not intend to patronize the same cleaner again.

6(c) There will be no significant difference in final satisfaction with the independent testing laboratory report between consumers who do or do not intend to continue using its services.

6(d) There will be no significant difference in final satisfaction with the results of the post-dissatisfaction action(s) taken between consumers who do or do not intend to initiate similar post-dissatisfaction actions.

The Mann-Whitney U Test indicated highly significant differences with respect to the textile product and the laboratory report. Satisfied consumers were more willing (p=0.004) to repurchase a similar textile product than dissatisfied consumers (Table V) and satisfied consumers were more willing (p=0.000) to use the services of the laboratory than dissatisfied consumers (Table X). Therefore, null hypotheses 6(a) and 6(c) were rejected.

No significant differences were found with respect to the cleaner (p=0.171, Table VII) or post-dissatisfaction actions (p=0.121, Table XV). Thus, null hypotheses 6(b) and 6(d) were accepted.

Summary

A tabular illustration which summarizes the testing of the null hypotheses and their acceptance-rejection is presented in Table XVI.

TABLE XVI

Testing of the Null Hypotheses

Null Hypothesis	Statistical Analysis	Outcome	Probability
1(a)	Mann-Whitney U Test	Insufficient Data	——
1(b)	" " " "	" "	——
1(c)	" " " "	Rejection	0.001****
1(d)	" " " "	Rejection	0.000****
2	Sign Test	Rejection	0.001****
3	Chi-square	Acceptance	0.278
4 (a)	Kruskal-Wallis One-Way Analysis of Variance	Rejection	0.023*
4(b)	Mann-Whitney U Test	Insufficient Data	——
4(c)	Kruskal-Wallis	Acceptance	0.189
5(a)	Kruskal-Wallis	Rejection	0.009**
5(b)	Kruskal-Wallis	Insufficient Data	——
5(c)	Mann-Whitney U Test	Acceptance	0.500
6(a)	Mann-Whitney U Test	Rejection	0.004***
6(b)	" " " "	Acceptance	0.171
6(c)	" " " "	Rejection	0.000****
6(d)	" " " "	Acceptance	0.121

*$p < .05$
**$p < .01$
***$p < .005$
****$p < .001$

CHAPTER V

INTERPRETATION

The results will be interpreted according to the conceptual framework, objectives, and hypotheses of the study.

Beliefs play an important role in Engel, Blackwell, and Kollat's (1978) theory of satisfaction (Part A of the conceptual framework). If beliefs are confirmed with regard to the outcome of an act, the consumer will experience satisfaction. The first objective of this study was to determine if Engel et al.'s (1978) theory of satisfaction was applicable to the four aspects of the particular experience studied. Hypotheses 1(a), 1(b), 1(c), and 1(d) were formulated to achieve this objective.

Highly significant differences were found with respect to hypotheses 1(c) regarding the laboratory report and 1(d) regarding the post-dissatisfaction actions. These results indicated that consumers whose beliefs were confirmed by a favorable outcome were more satisfied than those consumers whose beliefs were not confirmed.

Hypotheses 1(a) and 1(b) could not be tested because of the large number of consumers whose beliefs were not confirmed in comparison to the very small number of consumers whose beliefs were confirmed. A possible explanation for this large discrepancy is that consumers had very high expectations regarding the commercial serviceability of the product and the cleaner's performance. This explanation is supported by the fact that only one woman acknowledged that her product might be difficult to service commercially.

Upon further examination of the data on the product and cleaner, there is a good possibility that hypothesis 1(b) regarding the cleaner would support the Engel et al. (1978) theory of satisfaction while hypothesis 1(a) regarding the product would not support the theory. In hypothesis 1(b), all consumers whose beliefs were not confirmed consistently indicated dissatisfaction with the cleaner; thus providing some support for the Engel et al. (1978) theory of satisfaction.

The data for hypothesis 1(a), however, indicated only a partial support for the theory. While half of the group of consumers whose beliefs were not confirmed reported dissatisfaction with the product, the other half of the group reported satisfaction. These results might be partially explained by Herzberg et al.'s (1959) and Swan

and Combs (1976) findings that there may be distinct factors which produce satisfaction in contrast to other factors which produce dissatisfaction.

Although hypotheses 1(a) and 1(b) could not be tested, the results of hypothesis 2 indicated that a significant number of consumers were initially more satisfied with the commercial serviceability performance of the textile product than with the professional cleaner's performance.

In this study, all of the consumers were considered to be initially dissatisfied, rather than experiencing cognitive dissonance, with the commercial serviceability of the product and/or the cleaner's performance. If dissonance existed, the consumer would initiate an information search (Festinger, 1962). An example of an information source could be an independent testing laboratory. The results of the laboratory report would be stored as information and experience and would eventually influence the consumer's next purchasing decision.

Objective 2 of this study, however, proposed to examine the dissatisfied consumer's actions in the attempt(s) to achieve satisfactory results before final evaluations were stored as information and experience. An assumption was also made that the consumer's first action was the submission of the damaged textile product to an independent testing laboratory for analysis (Part B of the conceptual framework).

Although the results of hypothesis 1(c) regarding the laboratory report supported the Engel et al. (1978) theory of satisfaction, the theory of cognitive dissonance could also explain why two-thirds of the consumers whose beliefs were not confirmed by the laboratory reported uncertainty or satisfaction with the laboratory report. Festinger's (1962) theory of cognitive dissonance states that a psychological discomfort is produced when two beliefs are not in agreement. This may explain the reported uncertainty experienced by consumers when the report did not agree with their beliefs or did not identify any one party as responsible. The theory states that the individual would attempt to reduce dissonance through an information search and try to achieve consonance. Some consumers may have learned new information through the independent testing laboratory; thus explaining the satisfactory evaluations regarding the laboratory reports as indicated by a third of the consumers.

Approximately 70% of the consumers initiated further post-dissatisfaction actions after having their damaged products analyzed by the independent testing laboratory.

The results of hypothesis 3 also indicated that there was no significant difference in the consumer's initiation of further actions between those consumers whose beliefs were confirmed by the laboratory and those consumers whose beliefs were not confirmed. Upon further examination of the data, nine (81.8%) of the 11 consumers whose beliefs were confirmed took further action while 15 (65.2%) of the 23 consumers whose beliefs were not confirmed also took further action. Those consumers whose beliefs were confirmed probably took further actions since they had obtained evidence to support their redress claims against the cleaner, retailer, or manufacturer.

There are two explanations why the consumers whose beliefs were not confirmed decided to initiate further actions. One explanation is that the consumers may have appreciated the unbiased analysis from an independent testing laboratory; thus they were willing to accept the laboratory's designation of responsibility and follow up on the suggestions made by the laboratory. Several cases in this study also showed that although the laboratory could not designate one specific party as responsible, consumers were willing to initiate further actions as suggested by the laboratory.

Another explanation is that some consumers may have approached the laboratory as a source to support their initial perceptions of responsibility. When the laboratory did not support the consumers' beliefs, this new information was simply ignored and consumers continued to seek other ways to obtain satisfactory redress results. This explanation could be applicable to a few cases in which the laboratory designated a party contrary to the consumers' perceptions while the consumers proceeded to take further actions against the party that they initially believed was responsible for the damaged textile product.

The third part of the conceptual framework incorporated Day and Landon's (1976) post-dissatisfaction actions framework. Consumers indicated high expectations toward the partial or complete resolution of their problems when initiating further post-dissatisfaction actions. Hypotheses 4 and 5 were formulated to test for differences in satisfaction among the reported 41 private and public actions taken. The interpretation of these results, however, was limited to indicating if significant differences did or did not exist among the various groups since a nonparametric analysis of variance model was used in this study. The limitations of the statistical test prevented the identification of a specific action which provided the consumer with the highest satisfaction.

The results of hypothesis 4(a) indicated that there was a significant difference in consumer satisfaction among the various actions. In an attempt to learn more about these actions, the actions were categorized into two groups, private and public actions, and analyzed separately. In hypothesis 4(b), differences in satisfaction between the two types of private actions could not be tested due to a low number of responses and the results of hypothesis 4(c) indicated no significant difference among public actions. Only three respondents took private action and decided to stop patronizing the servicer. Although no one indicated warning family and friends about the product, seller, and/or servicer, it should not be presumed that these consumers did not relate these experiences to other people. Rather, it is quite possible that consumers did not feel that this action was worth mentioning in the questionnaire.

Public actions were further examined by analyzing the specific components within each of the following groups, namely, seeking redress from the various types of business firms, taking legal action to obtain redress from the various types of business firms, and registering a complaint with various consumer-oriented agencies. In hypothesis 5(a), significant differences in satisfaction were found among those consumers who sought redress from the various firms. Frequency counts indicated that the consumers were satisfied with the retailer and dissatisfied with the cleaner.

In hypothesis 5 (b), differences in satisfaction among those consumers who took legal action to obtain redress from the various business firms could not be tested due to insufficient data. Legal action was taken only against the cleaners and two of the three consumers indicated dissatisfaction when the cleaners refused to resolve the problem.

In hypothesis 5(c), no significant differences in satisfaction were found between those consumers who registered complaints to the Better Business Bureau and the provincial and/or federal "Consumer & Corporate Affairs" agencies. The data indicated that consumers were generally dissatisfied with the negligible results obtained through these agencies. Consumers may have expected these agencies to have a more influential role in the resolution of consumer problems.

Hypotheses 6(a), 6(b), 6(c), and 6(d) were formulated to meet the third objective of determining if relationships existed between behavioral intentions and reevaluations (final satisfaction) regarding each of the four aspects of this particular experience. The

results indicated that satisfied consumers were significantly more willing to repurchase similar textile products and to use the laboratory again than dissatisfied consumers. These results supported Engel et al.'s (1978) hypothesis that satisfactory evaluations will increase the probability of repeating similar actions.

Although the textile product itself was often identified by the laboratory as the cause for its poor commercial serviceability, this fact did not seem to influence the consumers' reported satisfaction with the product. This result might be partially explained by Herzberg et al.'s (1959) and Swan and Combs (1976) findings that the factors which produce satisfaction were distinct from those factors which produce dissatisfaction.

In addition, the fact that the product was responsible for its poor performance did not seem to influence the intentions of those satisfied consumers who indicated that they would repurchase a similar product. This result suggests that other purchasing factors may be more important than the commercial servicing performance of a product. Two reasons given by the satisfied consumers for repurchasing a similar product were "good performance during use" and "nice appearance".

Another reason for the high number of intentions to repurchase a similar product could be attributed to the consumer's belief that the cleaner was responsible for damaging the first product. Although the laboratory stated that the cleaner could not be held responsible for the damage in many cases, the consumer may still believe that the cleaner was partly at fault. These consumers exemplify instances in which the information source was only partially successful in changing the beliefs of the consumers (Fishbein & Ajzen, 1975).

The intention by a majority of consumers (86.8%) to continue using the services offered by an independent testing laboratory, specifically the Textile Analysis Service, suggests that consumers may regard the laboratory as a promising source of information should they encounter dissatisfaction with another textile product. Consumers indicated satisfaction with the impartial role of the laboratory in designating responsibility for a damaged textile product and in several cases, with the effectiveness of the laboratory report when initiating post-dissatisfaction actions.

The final objective of this study was to determine the feasibility and usefulness of

studying consumer satisfaction with the commercial serviceability of selected textile products with a sample of consumers who had used the services of an independent testing laboratory. Implications for further research are included in the following chapter.

CHAPTER VI

SUMMARY, IMPLICATIONS, AND CONCLUSIONS

The purpose of this exploratory study was to explain consumer satisfaction with the commercial serviceability of a selected group of textile products. The textile products included various home furnishings and specialty clothing items (specifically, suede, leather, fur, and down-filled garments).

The conceptual framework used in this study was based on Engel, Blackwell, and Kollat's (1978) theory of satisfaction (the confirmation of beliefs and the outcome of an act) and Day and Landon's (1976) framework of post-dissatisfaction actions for the dissatisfied consumer. This framework allowed for the study of consumer satisfaction with the following four aspects of a particular experience: (a) the performance of the textile product during commercial servicing; (b) the performance of the professional cleaner while servicing the particular textile product; (c) the results from an independent testing laboratory report in determining the responsibility for the damaged product; and (d) the results of post-dissatisfaction actions taken by consumers.

Of the initial 115 cases selected from the files of the Textile Analysis Service at the University of Alberta, only 45 consumers responded by returning the questionnaires mailed to them. The responses were descriptively analyzed using frequencies and percentages and statistically analyzed using the following nonparametric tests: the Mann-Whitney U Test, Sign Test, Chi-square, and Kruskal-Wallis One-Way Analysis of Variance.

A descriptive analysis of the results indicated that the consumer has high expectations regarding both the performance of the textile product during commercial servicing and the performance of the professional cleaner. When these expectations were not confirmed and a damaged product was returned from the cleaner, the majority of the consumers believed that the cleaner was responsible. The Textile Analysis Service, however, indicated that the responsibility was attributable most often to the manufacturer, followed by the cleaner and natural causes. Post-dissatisfaction actions were initiated by 31 consumers and satisfaction was indicated most often with the retailer's resolution of the problem. While the majority of the consumers indicated

intentions to repurchase similar textile products, to continue using the services of the Textile Analysis Service, and to follow similar post-dissatisfaction actions, they did not intend to patronize the same cleaner.

With a few exceptions, the findings generally supported the conceptual framework and its supporting theories. Support for the Engel et al. (1978) theory of satisfaction was limited to the consumer responses regarding the laboratory report and post-dissatisfaction actions. Insufficient data regarding the textile product and professional cleaner prevented their analyses.

Consumer responses regarding the various types of post-dissatisfaction actions taken supported Day and Landon's (1976) framework. The findings, however, indicated a high number of responses toward public actions and a possible neglect in the mentioning of private actions. Engel et al.'s (1978) hypothesis that satisfactory evaluations will increase the probability of repeating similar acts was supported regarding the consumer's intentions to repurchase similar textile products and to continue using the services of the Textile Analysis Service.

Implications for Further Research

This study examined consumer satisfaction with four aspects of one particular experience. Separate satisfaction studies focusing on each specific aspect, namely, textile product performance, commercial servicing, independent testing laboratories, and post-dissatisfaction actions should be conducted since the research literature in these areas is limited.

Follow up study. The small sample in this study was selected from one independent testing laboratory and generalizations were limited to the consumers who had used the services of this laboratory. If several laboratories were asked to participate in a similar study, a larger, randomly selected sample of dissatisfied consumers who used such laboratories could be selected.

The beliefs reported by the respondents were recognized as having been affected by the performances of the product and cleaner, the results of the report from the laboratory and the outcomes of post-dissatisfaction actions. If consumers were telephoned before the laboratory returned the product with the report, more reliable information regarding their expectations could be obtained.

The results of this exploratory study were limited to analyses with nonparametric tests; analyses with parametric tests could provide additional information. For example, if a parametric analysis of variance model could be used to test for interactions among the groups of post-dissatisfaction actions in this study, one could identify which action(s) provided the consumer with the most satisfactory results. Two criteria must be met before parametric tests can be used: (a) the sample should be randomly selected and more representative so that broader generalizations can be made; and (b) the data should be at least at an interval level of measurement. The latter criterion may be difficult to accomplish since a reliable and valid satisfaction scale with equal intervals has yet to be developed; the equality of the intervals in a Likert-type scale cannot usually be ascertained.

This study had a response rate of 39.1%. A telephone interview or personal interview may prove to be more productive than mailing questionnaires to the consumers. Limitations, however, exist with both alternatives. If telephone interviews are initiated, satisfaction scales may have to be limited to discrete responses (i.e., "satisfied" or "not satisfied") for ease in consumer response. If personal interviews are initiated, the sample may have to be restricted to a small geographical area.

The questionnaire developed for this study failed to produce an adequate number of consumer responses regarding the private actions taken. One possible method of increasing the number of responses in this category is the inclusion of a check list of private actions. The possibility of introducing bias into the study, however, should be noted with this method.

Consumer education. The sample in this study consisted of a special group of dissatisfied consumers who decided to take action and approached the Textile Analysis Service for help in resolving a dispute. (In most cases, the cleaners recommended that the damaged product be submitted for analysis). Identifying the reasons why dissatisfied consumers do not initiate action (e.g., use the Textile Analysis Service, seek redress action) would help to indicate: (a) if the consumer is aware of the various sources to approach, and (b) if not, whether improvements in consumer education programming may be an answer to the problem.

Management policies for the testing laboratory. The consumer feedback as obtained in this study (general satisfaction with the laboratory) could provide some direction for improving management policies. More detailed studies of consumer satisfaction with the laboratory would be helpful to the service. The laboratory could benefit from consumers' opinions to establish if a need exists for more advertising of the services to the public, and to determine how the laboratory could better serve the community.

Management policies for the commercial servicing firms. The consumer feedback as obtained in this study (general dissatisfaction with the commercial servicing firms) could provide some direction for improving management policies. Many consumers were dissatisfied with the cleaner's quality of workmanship as well as the handling of complaints. Professional cleaners might attempt to alter that image and perhaps focus on improving customer relations. More detailed studies of consumer satisfaction with the professional cleaners would be helpful in such an attempt.

Conclusions

The results of this exploratory study have indicated some support for the conceptual framework and its supporting theories. The Engel et al. (1978) theory of satisfaction was applicable to the report from the laboratory and the results of post-dissatisfaction actions. Consumers whose beliefs were confirmed regarding the outcomes of these actions were found to be significantly more satisfied than those consumers whose beliefs were not confirmed.

The various types of public actions outlined in Day and Landon's (1976) post-dissatisfaction actions framework were initiated by consumers more often than the various types of private actions. The consumers in this study may have believed that the private actions would not be worth mentioning in comparison to the public actions.

Engel et al.'s (1978) theory that satisfactory evaluations will increase the probability of repeating similar actions was supported regarding the consumer's intentions to repurchase similar textile products and to continue using the services of the Textile Analysis Service. Consumers were generally satisfied with the independent testing laboratory report and intended to continue using the services of the laboratory. Although the results of the report may not have confirmed their initial beliefs, consumers may have

been satisfied with the fact that the analysis was unbiased and/or with the fact that there was an intermediary source which could help in determining responsibility. In addition, consumers may be satisfied with the effectiveness of the report when obtaining redress from the business firms involved.

Further study could provide more reliable data, broader generalizations, and additional support for the theories of satisfaction. Further research focusing on consumer satisfaction with each of the aspects studied would not only add to the existing consumer satisfaction literature, but would also increase knowledge in the areas of consumer education and management of both commercial servicing firms and testing laboratories.

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APPENDICES

Appendix A

Covering Letter Mailed to Consumers

403 • 432·3824

FACULTY OF HOME ECONOMICS

THE UNIVERSITY OF ALBERTA • EDMONTON, CANADA • T6G 2M8

March 29, 1979

Dear Sir or Madam,

The Textile Analysis Service, with the cooperation of the Faculty of Home Economics at the University of Alberta is conducting a study of consumer satisfaction with the serviceability of textile products. We hope the results will lead to a better understanding of consumers' problems in this area, and thus to better service for you the consumer. Since one or more of your textile items has been analyzed by us, we would especially like you to participate in our study. Your cooperation in completing the enclosed questionnaire will be greatly appreciated.

I think that you will find the questionnaire interesting, as it concerns a damaged item that was sent to us by you, a retailer, or a professional cleaner. Feel free to comment on any of the questions.

Please return your completed questionnaire as soon as possible. For your convenience, a stamped, addressed envelope is included. I will telephone you within a week from today, so if you have any questions about the questionnaire I can answer them at that time.

Thank you!

Sincerely,

Valerie Higa

(Ms.) Valerie Higa

Appendix B

Questionnaire Mailed to Consumers

QUESTIONNAIRE

PLEASE NOTE:

When answering Question Nos. 1-7, please do not let the information from the laboratory report influence your responses!

Question Nos. 1, 2, 3, and 4 refer to your opinions regarding the condition of your textile product.

Question Nos. 5, 6, and 7 refer to your opinions regarding the performance of the professional cleaner.

PART I: PRODUCT PERFORMANCE

1. Describe the condition of your _____ before sending it to the cleaners.

_____

_____

_____

2. Describe the condition of your _____ as you had expected it to be when returned from the cleaners.

_____

_____

_____

3. Describe the actual condition of your _____ when it was returned from the cleaners.

_____

_____

_____

4. How satisfied were you with your _____ capability to be cleaned? (Please circle one number on the scale below)

Definitely Satisfied	Satisfied	Unsure	Not Satisfied	Definitely Not Satisfied
5	4	3	2	1

PART II: PROFESSIONAL CLEANER'S PERFORMANCE

5. What were your expectations regarding the *professional cleaner's* quality of workmanship?

_____

_____

_____

6. After your . had been cleaned, did the results confirm your expectations regarding the *professional cleaner's* quality of workmanship?

☐ YES

☐ NO Why not?_____

_____

_____

7. How satisfied were you with the *professional cleaner's* quality of workmanship? (Please circle one number on the scale below)

Definitely Satisfied	Satisfied	Unsure	Not Satisfied	Definitely Not Satisfied
5	4	3	2	1

PART III: LABORATORY REPORT: TEXTILE ANALYSIS SERVICE

8. Before sending your to be analyzed by the laboratory, who did you believe was responsible for the damage to your item? (Please check one of the boxes below)

☐ the manufacturer/retailer because the product was defective

☐ the professional cleaner because of an error while cleaning the product

☐ the manufacturer/retailer and the professional cleaner

☐ yourself and/or family member

☐ undecided

☐ If none of the above, please specify_____

9. After your damaged was analyzed by the laboratory, did the laboratory's report confirm your beliefs (if any) regarding which party was responsible?

☐ YES

☐ NO Why not?_____

_____

_____

10. How satisfied were you with the results of the laboratory's report? (Please circle one number on the scale below)

Definitely Satisfied	Satisfied	Unsure	Not Satisfied	Definitely Not Satisfied
5	4	3	2	1

3

PART IV: ACTIONS TAKEN TO RESOLVE THE PROBLEM

*11. After receiving the laboratory's report, did you (or another party) initiate other actions to resolve the problem with your damaged

☐ YES

☐ NO

*NOTE: *IF YOUR RESPONSE TO QUESTION 11 IS 'YES', CONTINUE ON TO QUESTION 12.*
IF YOUR RESPONSE TO QUESTION 11 IS 'NO', MOVE TO QUESTION 16.

12. List all actions taken to resolve your problem in the order taken. (If necessary, continue on the back of this page)

Action 1 _____

Action 2 _____

Action 3 _____

13. What result did you expect from each of the actions as indicated in Question 12? (Please circle one number on the scale below for each action taken and comment on the lines provided)

	Complete Resolution of the Problem	Partial Resolution of the Problem	Unsure	Hardly Any Resolution of the Problem	No Resolution of the Problem
Action 1	5	4	3	2	1
Action 2	5	4	3	2	1
Action 3	5	4	3	2	1

Brief comments _____

14. What were the *actual* results of each action taken as indicated in Question 12?

Action 1 _____

_____

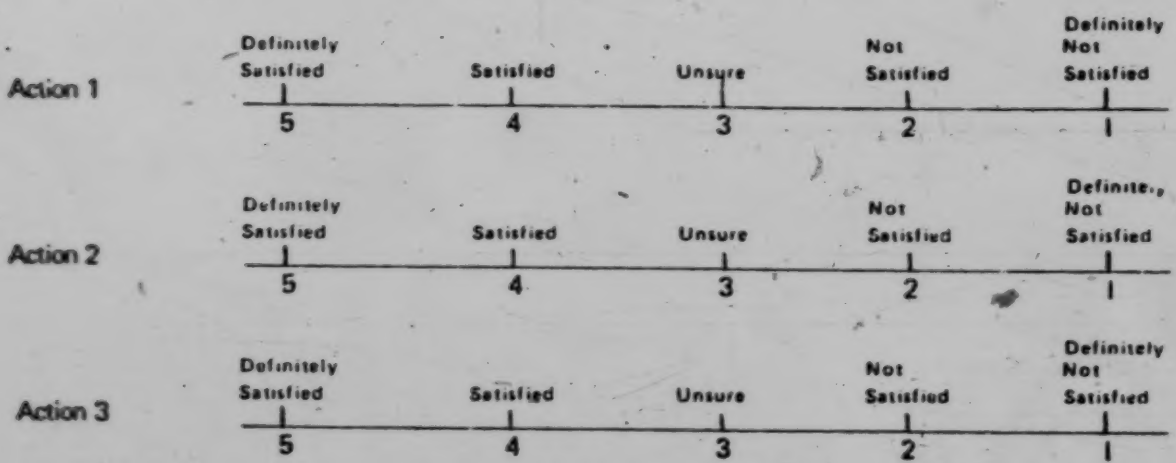
Action 2 _____

_____

Action 3 _____

_____

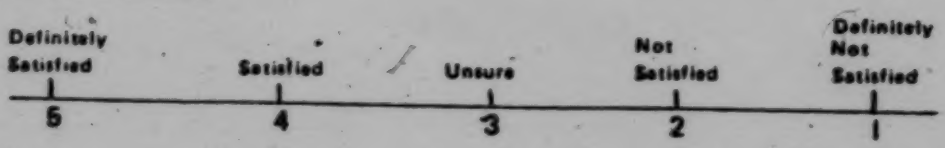
15. How satisfied were you with the results of these actions? (Please circle one number on the scale below for each action taken)



PART V: REEVALUATION

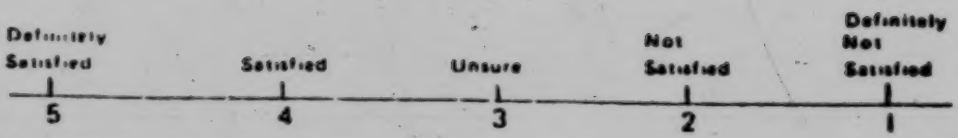
16. After going through this entire experience regarding your damaged , indicate your present satisfaction with each of the following items. (Please circle one number on the scales below for each item)

a) The product's capability to be cleaned:

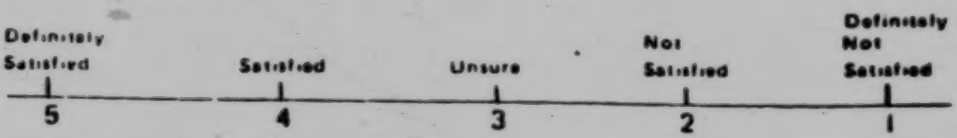


5

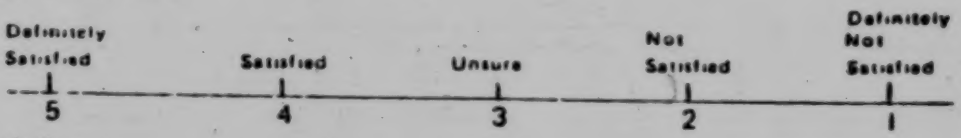
b) The professional cleaner:



c) The Textile Analysis Service's laboratory report:



d)The results of the further actions taken:



17. Would you repurchase a similar

☐ YES ☐ NO

Why? _____

_____

18. Would you patronize the professional cleaner again?

☐ YES ☐ NO

Why? _____

_____

19. If a similar situation occurred again, would you use the Textile Analysis Service laboratory?

☐ YES ☐ NO

Why? _____

_____

20. a) If a similar situation occurred again, would you take action(s) similar to those listed in Question 12?

☐ YES ☐ NO

Why? _____

_____

b) If 'NO', what different types of actions might you take?

_____